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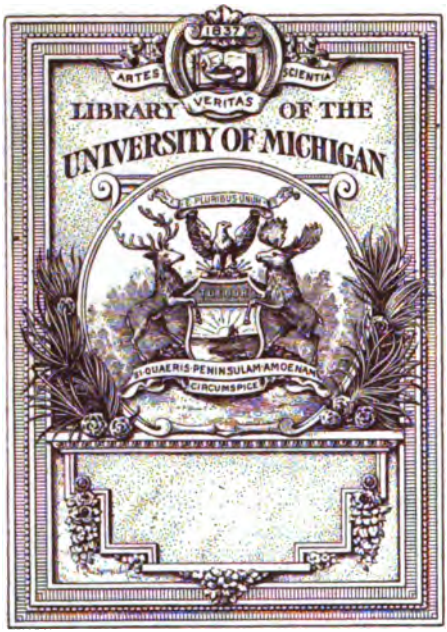
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HUNT'S

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AND

# COMMERCIAL REVIEW.

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THE

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HUNT'S

# MERCHANTS' MAGAZINE.

JANUARY, 1847.

## Art. I.—HISTORICAL SKETCH OF NAVIGATION AND NAVAL ARCHITECTURE.

NUMBER III.—NEW SERIES.

**The spirit of commercial enterprise is diffused throughout the country. It is a passion as unconquerable as any with which nature has endowed us. The prosperity of foreign commerce is indissolubly allied to marine power. The authority to provide a navy was confided to Congress, and the period has arrived when it should be exercised. A navy will form a new bond of connection between the states, concentrating their hopes, their interests, and their affections.—HENRY CLAY.**

THE first object of Admiral Sir George Rodney, after he had organized his large fleet at Barbadoes, was to intercept a second convoy, which had sailed from Brest, for the same object of that which had been so successfully attacked by Admiral Kempenfelt; he, therefore, disposed of his heavy ships, in a line to the windward of the French islands, and another line, composed of frigates, was formed beyond them; but the convoy, having made the island of Desiada, to the northward, passed to leeward of the British fleet, and keeping close in under the land of Guadaloupe and Dominique, escaped, and arrived safe into Port Royal Bay, in the island of Martinico, on the 20th of March, where they found Count De Grasse.

Sir George having been disappointed in his object, went to St. Lucia to refit and take in supplies, while his frigates watched the manœuvres of the French.

The objects of the hostile commanders, were as opposite as their interests. It was the design of De Grasse to avoid fighting, till he had formed a junction with the Spanish fleet under Don Solano, at Hispaniola. On the other side, the salvation of the West Indies depended upon Rodney's preventing a union of the French and Spanish forces, or bringing on a decisive engagement with De Grasse, before it could be accomplished.

The British fleet amounted to thirty-six ships of the line; and that of France to thirty-four, having on board five thousand five hundred troops;

but several of the ships were in a bad condition. The van of the British was commanded by Sir Samuel Hood, the centre by Sir George Rodney, and the rear by Admiral Francis Drake. The three divisions of the French fleet were under Count De Grasse and Admirals Vaudreuil and Bougainville.

On the 8th of April, at break of day, the French fleet moved out of Port Royal, with a large convoy under its protection, bound to the French leeward ports, or those of Spain in Hispaniola. De Grasse intended to keep close under the islands, to avoid an encounter on his passage; but his departure was so speedily communicated, by signals from the British frigates which were on the look-out, that Rodney was clear of Gross Islet Bay by noon, and pursued with such expedition, that he gained sight of the French fleet at night, close under Dominique. Early the next morning, Count De Grasse formed his line of battle to windward, and thereby offered an opportunity to his convoy to proceed on its course, while he remained to abide the consequences of an engagement. While the Count had wind enough for these movements, being further advanced towards Guadaloupe, the British fleet lay becalmed under the highlands of Dominique. The breeze at last reached the van of the latter, and the ships began to close with the French centre, while their own centre and rear were still becalmed,

The action commenced about nine o'clock. The attack was led by the Royal Oak, and followed by the Alfred and Montague. The whole division was in a few moments closely engaged, and for more than an hour was severely pressed, by the superiority of the French; but at last the leading ships of the centre were enabled to come to its assistance. These were soon followed by Rodney in the Formidable, with the Namur and the Duke, all of ninety guns. They delivered and supported a most tremendous fire. The gallantry of a French commander of a seventy four in the rear excited the applause and admiration of his enemies—who, having backed his main topsails, steadily received and bravely returned the fire of three ships of the line, in succession, without in the least changing his station. The coming up of these several ships of the centre division induced the French commander to change the nature of the action, in such a manner as that it might not be decisive; and therefore kept at such a distance, during the remainder of the engagement, as evinced an intention of disabling the British ships without any considerable hazard on his own side. The action was thus continued for nearly two hours longer: during all which time, the other portion of the British fleet was kept back by the calms and baffling winds, under Dominique; but about twelve o'clock, the other ships of the centre came up, and the rear was closing the line, when De Grasse withdrew his fleet from the action.

Two of the French ships were so much injured, that they were obliged to quit the fleet and put into Guadaloupe, which reduced the Count's line to thirty-two ships. On the British side, the Royal Oak and Montague suffered extremely, but were capable of being repaired, without the necessity of leaving the fleet.

The British fleet lay to, during the night, to repair damages, and the next day was principally spent in refitting, keeping the wind, and in transposing the rear and van; as the former, not having been engaged, was in a better condition for the active service of that division. Both

fleets kept turning up to windward, in the channel which separates Dominique and Guadaloupe.

On the 11th, the French had weathered Guadaloupe, and gained such a distance that the main body of the fleet could not be discovered from the British centre. About noon, one of the French ships, which had suffered in the action, was perceived to fall off considerably from the rest of the fleet to leeward, when the British Admiral made signals for a general chase, which was so vigorous that the Agamemnon, and some others of the headmost ships of the line were coming up so fast with that ship, that her dangerous situation induced De Grasse to bear down, with his whole fleet, to her assistance. The pursuing British ships fell back into their stations, and a close line was formed. During the night, such manœuvres were performed by the British fleet, as were necessary to maintain its position. The French also prepared for battle with the greatest resolution.

The position of the fleets, on the morning of the 12th, was between the islands of Guadaloupe and Dominique, and was bounded to windward and leeward by dangerous shores. The fleets met on opposite tacks, and the battle commenced about seven o'clock, which was continued with unremitting fury, until near the same hour in the evening. Admiral Drake's division led, and received and returned the fire of the whole French line. The other ships, as they came up, ranged slowly along the French line, and in close order under their lee. The Formidable, Rodney's ship, fired near eighty broadsides. The dreadful fire of the British was returned with the utmost firmness. Each side fought as if the honor of their respective countries were staked on the issue of the day.

Between twelve and one, Admiral Rodney, in the Formidable, with the Namur and the Duke, and immediately supported by the Canada, bore directly athwart the French line under full sail, and successfully broke through, about three ships short of the centre, where Count De Grasse commanded, in the Ville de Paris, of 110 guns. Being followed by the remainder of his division, and wearing round, close upon the enemy, he effectually separated their line. This novel and bold movement was decisive; but the French, however, continued to fight with the utmost bravery until sunset.

The moment that Rodney wore, he threw out a signal for the van to tack. Drake instantly complied; and thus the British fleet gained the wind of the French, and completed their general confusion. Their van endeavored to re-establish the line, but without success; and their rear was so entirely routed, that every effort for recovering its order was unavailing. Hood's division had been long becalmed, and was consequently prevented from coming into action; but his leading ships and part of his centre, as far at least as the Barfleur, which he commanded, came up at this juncture, and had a decisive effect.

Captain Inglefield, in the Centaur, of seventy-four guns, advanced from the rear to the attack of the Cæsar, of like force. Both ships were fresh, and fought bravely; and although three other British ships came up successively, and poured in such a destructive fire that the Cæsar was nearly torn to pieces, still her commander was inflexible. His ensign staff being shot away, he ordered his colors to be nailed to the mast, and the contest was not ended, until he was slain. When the ship struck, one of her masts went overboard, and there was not a foot of canvass without a shot-hole. In the course of the night she got on fire and blew up, when

a British lieutenant and fifty seaman, with four hundred of her crew, perished.

The captain of the Glorieux refused to yield till all his masts were shot away, and the ship was unable to make any defence.

Count De Grasse made a noble defence; even after the line was broken, until toward evening, when the division and confusion became irreparable. The Languedock, Couvonne and Diadem were particularly distinguished, in his division; and the latter went down, in her gallant efforts to defend him. The Count's ship, after being much battered, was closely laid athwart by the Canada, and, in a desperate action of nearly two hours, was reduced almost to a wreck; still he considered it of the first importance to maintain the action, from the effect it might have on the whole fleet; and besides, he preferred sinking, rather than strike to any officer under the rank of an Admiral. Other ships came up and assailed him; but he continued to hold out. At last, the Barfleur approached, just at sunset, and poured in a most destructive fire; the Count, however, endured the repetition of it for a quarter of an hour longer, and did not yield till over four hundred of his crew were killed, and there were but two men, besides himself, left alive and unhurt, on the upper deck.

The French lost six ships of the line, one of which was blown up, and another sunk. During the night, a part of the fleet ran down to the Dutch island of Curacoa; but the greatest part proceeded to Cape Francois, under Bougainville and Vaudreuil.

Sir George Rodney, with the disabled ships of his fleet, and the prizes, sailed for Jamaica. Sir Samuel Hood was left with twenty-five ships of the line, to keep the sea, and watch the motions of the French.

For the discovery of the grand manœuvre which secured that glorious victory to the British fleet, the commander was indebted to that ingenious Scotch geometrician, John Clerk of Eldin, who had invented and published, in January, 1782, an entirely new system of naval tactics, the adoption of which established an era in the naval history of Great Britain; for not only Rodney, but Admiral Duncan and Lord Nelson obtained their splendid victories of Camperdown and Trafalgar by breaking through the enemy's line of battle.

This is another memorable illustration of the mighty power of genius, when united with science, in the accomplishment of momentuous results. Like the French naval architect and engineer, Renau, Clerk, in the retirement of intellectual pursuits, had clearly demonstrated that the system of manœuvres which were taught in the British fleets, was not only erroneous in principle, but nugatory and fallacious in practice; and, what adds still greater lustre to his fame, he was not only utterly without experience in maritime warfare, but had never made a sea voyage, or even seen a ship of war of the first class, until after he had completed his work, and went up to London to have it printed.

During the winter of 1781–2, France, Spain, and Holland were actively engaged in preparing extensive armaments, to be employed, in the spring in various expeditions against the possessions of Great Britain, in all parts of the globe; the ministers therefore adopted the most energetic measures for counteracting the combined movements of those powerful maritime nations; and the chief objects of attention were to protect the trade of the Baltic, cut off the supplies that were destined for the fleets

and settlement of France, in the East and West Indies, and to relieve Gibraltar.

As intelligence was received, that eighteen large transports had been loaded at Brest with provisions, ammunition, and troops, which were to be accompanied by several ships of war, would soon sail from that port, to reinforce Admiral Suffrein, in India, Admiral Barrington was despatched with twelve ships of the line, to intercept them. He fell in with the convoy on the 20th of April, when the signal for a general chase was thrown out: but the Foudroyant, Captain Jarvis, was the only ship that was able to come up with the fleet; and this he did not effect till one o'clock in the morning. The transports were immediately dispersed by signal, and Jarvis engaged the Pegase of seventy-four guns. The action was fiercely contested for an hour, when the French ship surrendered. Soon after daylight, Captain Maitland, in the Queen, came in sight, and took charge of the prize; and the next day he captured the Actionare of sixty-four guns. Ten transports were captured by other ships of the squadron, having on board two thousand troops, besides valuable cargoes of military supplies.

Upon the return of Admirl Barrington, Admiral Kempenfelt sailed, the 16th of May, with nine ships of the line, to cruise in the channel; and information being received that the Dutch were prepairing to leave the Texel, Lord Howe proceeded with a squadron of twelve sail of the line, to the coast of Holland; but the Dutch fleet, which had previously sailed, on receiving intelligence of his approach, put back; and he returned to Portsmouth, after cruising off the coast for three weeks.

Two powerful squadrons of French and Spanish ships having joined at Cadiz, proceeded to the Bay of Biscay, where they expected to be reinforced by another from Brest. While cruising in those latitudes, they met, on the 25th of June, a numerous British convoy, bound to Newfoundland and Canada, and captured eighteen sail.

A large fleet of merchantmen being expected from Jamaica, under the convoy of a small squadron, commanded by Sir Peter Parker, it was determined that all the ships in readiness for sea, should be sent out for its protection, notwithstanding the combined fleets were masters of the sea, from the mouth of the straits to Ushant; and the squadrons of Admirals Barrington, Rose, and Kempenfelt, being joined to that of Lord Howe, he sailed early in July, with a fleet of twenty-two sail of the line. He kept to the westward of the allied fleets, to avoid being forced into an engagement; and before the close of the month, the convoy arrived safely in England. Lord Howe returned to Portsmouth about the middle of August.

As Gibraltar had been invested by the armies and fleets of Spain and France, ever since the commencement of hostilities between the former kingdom and Great Britain, the garrison was so reduced that unless speedily relieved, it was considered impossible that the gallant commander, General Elliot, could much longer resist the immense land and marine forces by which he was assailed; and the utmost expedition was therefore used, in the preparation of a powerful armament for that important purpose.

Among the ships selected for this expedition, was the Royal George, of one hundred and ten guns, which was the flag ship of Admiral Kempenfelt. It had been found necessary that she should be slightly careened,

for the purpose of making some slight repairs, and while in this position, a gale of wind suddenly arose, which threw the ship on her side, and the ports being all open, she instantly filled and went to the bottom. The Admiral, with many of the officers, and from eight hundred to a thousand other persons were lost, and only about three hundred of the crew, who were on the upper deck, escaped.

The Dutch fleet having returned to port, the ships which had been sent to the Downs to watch its movements, joined the fleet which had been collected at Portsmouth, for the Gibraltar expedition. It consisted of thirty-five ships of the line, and several frigates and fire-ships. The command was given to Lord Howe, and he was accompanied by Admirals Barrington, Milbank, Hood, Sir Richard Hughes, and Commodore Hotham. He sailed on the 14th of September, with a great number of transports and store-ships, having on board a large body of troops.

A violent gale of wind, in the Straits of Gibraltar, during the night of the 10th of October, threw the united fleets of Spain and France into great disorder, and occasioned considerable damage to those in the bay, where they had taken a position to co-operate with the powerful floating batteries, which had been prepared at great expense, for the reduction of the fortress. One of the Spanish ships, of seventy-four guns, having been driven on shore, under the batteries, it was taken by the boats of the garrison; two other ships of the line were driven into the Mediterranean, and a third was dismasted.

The next morning, the British fleet entered the straits, in a close line of battle ahead; and early in the evening, the van having arrived off the bay, an opportunity was afforded for four of the store-ships to reach their destined anchorage without molestation; but twenty-seven others having missed the bay, were driven through the straits during the night. Lord Howe having proceeded up the coast, to collect his scattered convoy and escort them back to Gibraltar, the combined fleet sailed on the 15th from Algeziras to recover their two ships, as well as to intercept the British fleet and prevent its return with the transports.

When intelligence reached Lord Howe of the approach of the enemy, he was abreast of Fangarola, between Gibraltar and Malaga. He immediately despatched a sixty-gun ship with the convoy, which had been collected at the Zefarine islands on the coast of Barbary; and the Panther, of the same force, being left in the bay of Gibraltar, for the protection of the store-ships as they arrived, his force was reduced to thirty-one sail of the line.

Near sunset the combined fleet, consisting of sixty-four sail, of which forty-two were of the line, were seen about five leagues distant, bearing down, with a strong wind, in a line of battle. At daylight, the next morning, they were discovered close in with the land, but at such a distance, as not to be visible from the deck.

In the course of the night several transports which had not proceeded to the Zefarine isles, joined Lord Howe, and the wind becoming favorable, he proceeded in order of battle toward the straits, and succeeded in sending into Gibraltar bay, eighteen of the convoy. By the 18th, those which went to the coast of Barbary arrived, and two regiments which were on board the ships of war were landed, besides fifteen hundred barrels of powder. The garrison being thus relieved, Lord Howe took advantage of an easterly wind, to return through the straits, to the westward, on the morn-

ing of the 19th. When in the entrance of the straits, the combined fleets appeared in the northeast in pursuit, and the next morning had obtained a position to windward, about five leagues distant. The British fleet formed in order of battle to leeward. At sunset the enemy began a cannonade at the van and rear of Howe's fleet, but at such a distance as to produce very little effect. Part of his van, however, being separated from the rest, an attempt was made by the French and Spanish Admirals to cut off that division; but they met with such a gallant resistance, that the object was abandoned.

The next morning the combined fleets were at a considerable distance, apparently on their return to Cadiz; and Lord Howe having accomplished the object for which he had been despatched, proceeded on his way to England; but on his route sent eight ships of the line to the West Indies, amd six to the coast of Ireland.

Ten ships of war, including those taken by Sir George Rodney, in the action with Count de Grasse, having sailed from Jamaica with a large fleet of merchantmen, encountered a tremendous gale of wind off Newfoundland, on the 17th of September, in which the Ville de Paris, Glorieux, Hector, Centaur, and Ramilles foundered. Only one man, out of the two first-named ships, escaped, and but twelve, with the captain from the Centaur, who got into the only remaining boat, without compass or quadrant, with a blanket for a sail; and after traversing 800 miles of the Atlantic Ocean, and subsiting for sixteen days upon only two biscuits daily, divided among the whole number, they arrived at Fayal.

Seventeen sail of the merchant ships were captured by the American cruisers and carried into L'Orient.

In April, 1782, Captain Joshua Barney, in the Hyder Ally, of sixteen guns, engaged, off the entrance of Delaware Bay, the General Monk, of twenty, commanded by Captain Rogers. The General Monk bore down upon the Hyder Ally, and while coming up, Captain Barney observed to his officers and crew—"If I direct you to prepare for boarding, you are to remain at your guns and be ready to fire, the moment the word is given." As soon as the two vessels were within hailing distance, the commander of the General Monk demanded the surrender of the Hyder Ally; when Captain Barney gave the order, in a loud tone of voice, "Prepare to board!" which, being heard on board the General Monk, the commander mustered the greater portion of his crew on deck, to repel boarders. At that moment the word was given to fire, and such a destructive broadside was delivered, that twenty were killed, and thirty-three wounded, and among the latter, Captain Rogers, dangerously. The General Monk was then instantly boarded and captured.

When intelligence of the commencement of hostilities between England and Holland was received in India, the Presidency of Madras prepared an expedition against Negapotam, the most important Dutch settlement on the coast of Coramandel. The land forces, amounting to five thousand men, were commanded by Sir Hector Munro; and Admiral Hughes having arrived with his squadron, took such a position off the harbor, as to intercept all relief; and, by landing a portion of his seamen, and all his marines, rendered essential assistance to the army. The garrison had been reinforced by the troops of the celebrated Hyder Ally, the greatest warrior prince that had ever appeared in India, and who was, at that time, in alliance with France.

The troops were landed on the 21st of October, and the extensive works having been carried by assault, the governor capitulated on the 10th of November, 1781.

After Sir Edward Hughes had weathered out the monsoons, that set in immediately after the surrender of Negapotam, he proceeded to Ceylon, for the purpose of attacking the Dutch settlement of Trincomale, on the northern coast of that island, and arrived in the bay the beginning of January, 1782. Having landed a detachment of seamen, marines, and seapoys, Fort Trincomale was immediately taken. This gave the Admiral the command of the chief landing place, and Fort Ostenburg was soon after invested, and compelled to surrender. Two Indiamen, richly laden, and a number of smaller vessels, which lay in the harbor, surrendered as soon as the forts were taken.

Admiral Suffrein arrived off Madras on the 15th of February. On his way thither he captured the Hannibal of fifty guns, which had been separated from three other ships of seventy-four, sixty-four, and fifty guns, that had been sent from England, to reinforce Sir Edward Hughes' squadron. With the Hannibal, Suffrein's force was composed of twelve ships of the line, six frigates, eight large transports full of troops, and six British prizes.

Admiral Hughes had repaired to Madras roads, shortly after the reduction of Trincomale, to land his sick, and take in stores; and having been joined by the three ships which had escaped the French fleet, previous to its arrival, on the coast of Coramandel, his squadron consisted of nine sail of the line. Notwithstanding the inferiority of his force to that of Suffrein, he stood out to sea to meet him; and as the French commander avoided an action, and bore away to the south, he was pursued during the day and night. At daylight the next morning, it was discovered that the transports and prizes were making for Pondicherry, under the protection of the frigates, and that the ships of the line were at about twelve miles distance. A signal was therefore made to chase the frigates and vessels in their company, and six of the latter were taken, one of which had on board a large quantity of munitions of war, and three hundred troops; the other five were English prizes. As the French fleet was perceived to be bearing down to protect the frigates and transports, Admiral Hughes recalled such of his own ships of the line as were in pursuit, and prepared to meet it. The remainder of the day was employed in various movements on both sides, to gain the advantage of position; and during the night the respctive squadrons kept near each other.

On the 17th Admiral Suffrein directed his attack upon the rear division of the British squadron. Sir Edward Hughes' ship being the only one which was in a position to afford assistance to that division, which was separated from the remainder of the squadron, the effects of the attack fell chiefly upon him and Commodore King; but as the wind changed about six, the engagement became more general, and was continued until night. The French had about two hundred and fifty killed and wounded, and the British over one hundred and fifty, besides Captains Stephens and Reynolds, who fell early in the action.

The next morning the French fleet was not to be seen, and Admiral Hughes proceeded to Trincomale, to repair the damages his squadron had received. This having been accomplished, he returned to Madras; but as no tidings of Suffrein were received, he hastened back to Trincomale, with supplies for the garrison, and to meet a convoy from England, accom-

panied by two ships of the line. Suffrein having been informed of the approach of that force, was on his way to intercept it, when he was descried by Hughes, on the 8th of April; and before he could reach the harbor of Trincomale, the French gained the wind of him, and on the 12th bore down in order of battle. The British squadron, at that time, lay close to a lee shore. Suffrein ordered his van division to attack that of the British, while he assailed the Admiral, with the remainder of his squadron. The action was maintained with equal vigor, on both sides, till it was nearly dark, when the British squadron anchored, as it was in the midst of rocks and shoals, with only fifteen fathoms of water; and the French being much damaged, drew off to a considerable distance. Both parties had suffered so much in the action, that neither of them were in a condition to renew it, and lay several days in sight of each other, repairing their respective damages. At last the French bore down in a line of battle; but perceiving that the British squadron had been reinforced by the two ships of the line from England, and was fully prepared to receive them, they stood off and kept their course, until night coming on, they could no longer be seen.

The British loss, in killed and wounded, amounted to five hundred and sixty-seven, and that of the French was equally as great.

Admiral Suffrein proceeded to the harbor of Batacalo, on the eastern side of the island of Ceylon, where he was employed, until the beginning of June, in repairing his ships, when he returned to the coast of Coramandel, where the squadron was amply supplied with provisions by the Dutch, and received a large reinforcement of men, from the French port of Cuddalore. The British squadron was, at that time, at Negapotam, and on the 5th of July Admiral Suffrein appeared off that place, when Sir Edward Hughes immediately put to sea, and stood after him. The evening and night were spent in gaining the wind, which having been accomplished, the British fleet bore down upon the French, and commenced a close action at half-past ten. It continued with great energy on both sides, till near one o'clock, when the British squadron was thrown into disorder by a sudden change of the wind, while the French re-formed their line to windward. Sir Edward made the utmost efforts to gain such a position as would enable him to renew the action advantageously; but his squadron was so much scattered, that it was impracticable. The French squadron stood away, until it was dark, and then anchored about nine miles to leeward; and at the same time the British anchored between Negapotam and Nagore.

At break of day Suffrein got under way, and sailed for Cuddalore; and the ships of Hughes were so much injured that he was unable to pursue him. The slain and wounded in the French squadron amounted to nearly eight hundred, and in the British to about three hundred. Among the slain, in the latter, was Captain Maclellen, of Admiral Hughes' ship.

Admiral Suffrein having received information that a large number of transports, with troops and munitions of war, had arrived at the island of Ceylon, under the convoy of three ships of the line, he repaired his squadron with the greatest expedition at Cuddalore, and sailed early in August, with the determination to attempt the reduction of Trincomale. Having formed a junction with the transports and men of war, he proceeded to the harbor of Trincomale, where the troops were landed, under the fire of his squadron. Batteries were immediately constructed, which silenced those of the garrison in two days, and the commanding officer was obliged to capitulate on the last day of August.

In the meantime Admiral Hughes was repairing his squadron and taking in provisions and amunition at Madras; but having obtained intelligence of the departure of Suffrein from Cuddalore, for Ceylon, he sailed, as soon as it was possible, for Trincomale, where he arrived on the 2d of September, and was astonished to find that the forts had been taken, and the French squadron was at anchor in the bay, consisting of fifteen ships of the line, while he had only twelve; but he did not hesitate to prepare for an immediate engagement; nor was Suffrein averse to abide the issue of a contest, for he came out the next morning, and the action commenced at noon, with great fury on both sides. The conflict was continued with equal obstinacy by both squadrons, till about seven o'clock, when the French Admiral, having lost his mizzen and main-mast, and several of his ships being essentially damaged, he withdrew; and the British squadron was so much shattered, that it was not in a condition to pursue them. During the night Suffrein returned to Trincomale, but one of his ships, of seventy-four guns, was wrecked, in entering the harbor.

In this action the French loss in killed and wounded was nearly eleven hundred; and that of the British about three hundred and fifty; but among the slain were Captains Watt of the Sultan, Wood of the Worcester, and Lumley of the Isis.

While Suffrein was enabled to repair his ships in safety at Trincomale, Hughes was obliged to bear away to Madras for that purpose; but in consequence of the setting in of the monsoon, he was compelled to repair to Bombay, and as the weather was continually boisterous, he was not able to reach that place before the close of the year.

The beginning of June, 1783, Cuddalore was besieged by General Stuart, while Admiral Hughes, with seventeen sail of the line, lay off the harbor to prevent all communication by sea. On the 20th, Admiral Suffrein, with fifteen sail of the line approached, in order of battle, when Admiral Hughes, drew up his squadron in the same manner. The engagement began at four in the afternoon, and lasted three hours. During the night the French squadron returned to Pondicherry, and the British sailed the next day for Madras. The loss of the British was five hundred and thirty, and that of the French amounted to a greater number.

This engagement ended the naval operations of England and France in the East Indies. Six battles had been fought between Sir Edward Hughes and Admiral Suffrein, and five of them within the brief space of seven months. There is not an instance, in the annals of maritime warfare of such a signal and obstinate competition for victory, as was exhibited by the officers and crews of those two squadrons; and it is equally honorable to them, that so brave and determined were the commanders of every ship, that not one was captured, on either side; while the number and duration of the engagements, and the immense slaughter resulting from each, evinced that idomitable perseverance and desperate courage, which will render the battles of the rival fleets of Hughes and Suffrein ever memorable in naval history.

Congress passed a resolution, in 1776, directing that three ships, of seventy-four guns, should "be immediately undertaken in New Hampshire, Massachusetts, and Pennsylvania;" but only one of them—the America—was built. She was constructed at Portsmouth, and Captain John Paul Jones having been appointed commander, he was launched in her, on the 3d of September, 1782; but the Magnifique, of seventy-four guns, having

been sunk in Boston harbor, the America was presented, by Congress, to the king of France, to relpace that ship, in the fleet of the Marquis de Vandreuil, "in testimony of the sense they entertained of the generous exertions of His Most Christian Majesty, in behalf of the United States."

Preliminary articles of peace having been concluded, between the United States and Great Britain, on the 30th of November, the marine operations of the belligerent European powers were so far suspended, that neither of them prepared a naval expedition, after the return of the fleets, which had been employed in the attack and defence of Gibraltar.

Although several brilliant victories were achieved by the small national squadron; and the officers and crews, on many occasions, evinced great gallantry, energy and skill; still, so inferior in size were the vessels, that they were unable to contend with the numerous large ships of the enemy, which covered the Atlantic; and all, but eleven, of the thirty-six sail of ships, brigs, and schooners, which were fitted out, during the war, were either taken, blown up, or lost at sea.

The enterprise and success of the letters of marque and privateers, must be regarded as very remarkable, when the vast maritime force of England is taken into consideration; for it has been estimated, that over eight hundred vessels were captured, the value of which, including their cargoes, exceeded eleven millions of dollars.

After eight years' contest, the revolutionary war was gloriously concluded, and the independence of the United States established, by the definitive treaty of peace, which was signed at Versailles, on the 3d of September, 1783.

NEARCHUS.

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## Art. II.—COMMERCE WITH THE EASTERN COAST OF AFRICA.

The highlands included betwixt Abyssinia and the equator are unquestionably among the most interesting in Africa, whether viewed with reference to their climate, their soil, their productions, or their population. When the Ethiopic empire extended its sway over the greater part of the eastern horn, they doubtless supplied myrrh and frankincense to the civilized portions of the globe, together with the "sweet cane," mentioned by the phrofits Isaiah and Jeremiah, as being brought "from a far country." The slave caravan still affords a limited outlet to their rich produce; but the people, ignorant, and naturally indolent, are without protection, and they possess no stimulus to industry. Vice alone flourishes among them, and their fair country forms the very hot-bed of the slave trade. Hence arise wars and predatory violence, and hence the injustice and oppression which sweep the fields with desolation—bind in fetters the sturdy children of the soil, and cover the population with every sorrow, "with lamentation, and mourning, and wo."

In early times, as early probably as the days of Moses, the authority of Egypt extended deep into the recesses of Africa, and there is reason to believe, at later dates, far into those countries to the southward of Abyssinia, which are accessible from the shores of the Indian Ocean. The eastern coast, from beyond the Straits of Bab el Mandel, in all probability as far south as Sofala, the Ophir of Solomon, was well known to the enterprising merchants of Tyre, and to the sovereigns of Judea, from the days of the wise son of David downward. In still later periods, the con-

quering Arabs, when they had become followers of the false prophet, extended their sway over all this coast as far as the twenty-fifth degree of south latitude. The remains of their power, of their comparative civilization, and of their religion, are found throughout to the present day; and notwithstanding that their rule had greatly declined when the Portuguese discovered these parts four hundred years ago, it was still strong and extensive, and constant commercial intercourse was maintained with India.

No portion of the African continent has, however, excited less modern interest than the eastern coast; and this singular fact must, in a principal measure, be attributed to the extreme jealousy with which the Portuguese have guarded its approach, and withheld the limited information gained since the days of Vasco de Gama. "The treasure and the blood of the metropolis have been wasted in wars with the native powers, and the relations of commerce on every occasion postponed for those of conquest and dominion."* The illiberal spirit of the government, the monstrous cruelty of the traffic, and the nature of the system pursued, both civil and ecclesiastic, have had the natural effect of degrading those maritime tribes placed in immediate juxtaposition with the white settlers, and of effectually repelling the more spirited and industrious inhabitants of the highlands, whose prudence and independence have baffled attempted inroads. Many a fair seat of peace and plenty, vitiated by the operation of the slave trade, has been converted into a theatre of war and bloodshed; and the once brilliant establishments reared by the lords of India and Guinea, now scarcely capable of resisting the attacks of undisciplined barbarians, here, as elsewhere, exhibit but the wreck and shadow of their former viceregal splendor.

Although free to all nations, the eastern coast, from Sofala to Cape Guardufoi, has in later years been little frequented by any, save the enterprising American, whose star-spangled banner is to be seen waiving to the breeze, in parts where others would no deign to traffic; and who, being thus the pioneer to new countries, reaps the lucrative harvest which they are almost sure to afford. English ships from India have occasionally visited the southern ports for cargoes of ivory, and ambergris, but the trade being yet in its infancy, admitted of little routine; and in the absence of any rival, the Imam of Muscat is, with his daily increasing territories, fast establishing a lucrative monopoly, from Mombas and Zanzibar.

In most of the interior countries lying opposite to this coast to the south of Shoa, the people unite with an inordinate passion for trinkets and finery a degree of wealth which must favor an extensive sale of European commodities. In Enárea, Caffa, Gouráguê, Koocha, and Susa, especially, glass-ware, false jewelry, beads, cutlery, blue calico, long cloth, chintz, and other linen manufactures, are in universal demand. That their wants are neither few nor trifling may be satisfactorily ascertained from the fact that the sum of $500,000, the produce of the slave trade from the ports of Berbera, Zeyla, Tajúra, and Massowah, is only one item of the total amount annually invested in various foreign goods and manufactures, which are readily disposed of, even at the present price of the monopolist; who, being generally a trader of very limited capital, may be concluded to drive an extremely hard bargain for his luxurious wares.

It would be idle to speculate upon the hidden treasures that may be in

* Lord Brougham's Colonial Policy.

store for that adventurous spirit who shall successfully perform the quest into these coy regions—for time and enterprise can alone reveal them. But it is notorious that gold and gold-dust, ivory, civet, and ostrich feathers, peltries, spices,* wax and precious gums, form a part of the lading of every slave caravan, notwithstanding that a tedious transport over a long and circuitous route presents many serious difficulties: and that the overreaching disposition of the Indian Banian, and of the Arab merchant, who principally divide the spoils on the coast of Abyssinia, offer a very far from adequate reimbursement for the toil and labor of transportation.

No quarter of the globe abounds to a greater extent in vegetable and mineral productions than tropical Africa; and in the populous, fertile, and salubrious portions lying immediately north of the equator, the very highest capabilities are presented for the employment of capital, and the development of British industry. Coal has already been found, though at too great a distance inland to render it of any service without water communication; but the fossil doubtless exists in positions the most favorable for the supply of the steamers employed in the navigation of the Red Sea. Cotton, of a quality unrivalled in the whole world, is everywhere a weed, and might be cultivated to any requisite extent. The coffee which is sold in Arabia as the produce of Mocha, is chiefly of wild African growth; and that species of the tea-plant† which is used by the lower orders of the Chinese, flourishes so widely, and with so little care, that the climate to which it is indigenous would doubtless be found well adapted for the higher-flavored and more delicate spices so prized for foreign exportation.

Every trade must be important which will absorb manufactured goods and furnish raw material in return. Mercantile interests on the eastern coast might therefore quickly be advanced by teaching the natives to have artificial wants, and then instructing them in what manner those wants may be supplied through the cultivated productions of the soil. The present is the moment at which to essay this; and so promising a field for enterprise and speculation ought no longer to be neglected or overlooked. The position of the more cultivated tribes inland, the love of finery displayed by all, the climate, the productions, the capabilities, the presumed navigable access to the interior, the contiguity to British Indian posses-

* Ginger is exported in great quantities from Guragué; and among other indigenous spices, the *kurarima*, which combines the flavor of the carraway with that of the cardamon.

† *Chaat* is a shrub very extensively cultivated both in Shoa and in the countries adjacent. It is in general use among the inhabitants as a substitute for tea, which, in all its properties and qualities it closely resembles. The plant is said to have been brought originally from the western mountains, of which the elevation being from five to eight thousand feet, agrees with that of the Chinese tea districts, while the average temperature does not exceed 60° Fahrenheit. In a light gravelly soil it attains the height of twelve feet, and the leaves being plucked during the dry season, and well dried in the sun, fetch from one penny to two pence the pound. They are either chewed, or boiled in milk, or infused in water; and by the addition of honey, a pleasant beverage is produced, which, being bitter and stimulative, dispels sleep if used to excess.

The virtues of the *chaat* are equally to be appreciated with those of the *yerba mate*, recently introduced into England from Brazil and Paraguay. It is already known under the appellation of "Celastrus edulis," and belongs to Pentrandia Monogynia *Linné*, and to the natural family of Celastrineæ, or to that sub-family of the Rhamneæ, which have in the flower the stamens alternating with the petals. The family of Rhamneæ, namely, the genus Rhamnus itself, supplies to the poorer classes in China a substitute for tea, and is known under the name of Rhamnus Theezans L.

sions, and the proximity of some of the finest harbors in the world, all combine inducements to the merchant, who, at the hands even of the rudest nation, may be certain of a cordial welcome.

If, at a very moderate calculation, a sum falling little short of $500,000, can be annually invested in European or American goods* to supply the wants of some few of the poorer tribes adjacent to Abyssinia; and if the tedious and perilous land journey can be thus braved with profit to the native pedlar, what important results might not be anticipated from well-directed efforts, by such navigable access as would appear to be promised by the river Gochob? The throwing into the very heart of the country now pillaged for slaves a cheap and ample supply of the goods most coveted, must have the effect of excluding the Mohammedan rover who has so long preyed upon the sinews of the people; and this foundation, judiciously built upon by the encouragement of cultivation in cotton and other indigenous produce, could not fail to rear upon the timid barter of a rude people the superstructure of a vast commerce.

At a period when the attention of the majority of the civilized world, and of every well-wisher to the more sequestered members of the great family of mankind is so energetically directed toward the removal of the impenetrable veil that hangs before the interior, and fosters in its dark folds the most flagrant existing sin against nature and humanity, it could not fail to prove eminently honorable to those who, by a well-directed enterprise, should successfully overcome the obstacles hitherto presented by the distance, the climate, and the barbarity of the continent of Africa. But lasting fame, and the admiration of after ages, are not the only rewards extended by the project. A rich mercantile harvest is assuredly in store for those who shall unlock the portals of the Eastern coast, and shall spread navigation upon waters that have heretofore been barren.

Although peopled by one hundred and fifty millions of souls, the present exports of Africa do not equal in value those of Cuba, with only twelve hundred thousand inhabitants. This limited commerce, and the nature of the commercial system, have long been, and still are, among the chief causes of her misery and thraldom. Few, if any, of the commodities bar-

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* The following statement from the "United Service Journal," touching the introduction of American and British cotton manufactures into Africa, will be read with interest by friends of free trade, and domestic industry in the United States.—[*Ed. Merchants' Magazine.*]

"Barburra, the place where the great annual fair of Northeastern Africa is held, is situated on the African side of the Arabian Gulf, and in lat. 10° 30′ North. It is not a permanent town, but merely a low, sandy peninsula. Here the great Kufalahs or caravans from the interior and unexplored regions of Africa come to exchange their articles of merchandise for the production of the civilized nations. Cotton goods are the principal article given in exchange by the Bunyans from Porebunder, Cutch, Surat, and Bombay, (who monopolize the principal part of the trade at the Fair,) to the natives. *The manufactures of England were almost entirely excluded from the market* by American cloth; which is brought here from Mocha, and other ports of the Red Sea visited by American traders. This cloth can be purchased at a considerably less price than the English cloth. *Indeed, the American trade in cotton* is fast superseding the English, both in the ports of Yeman, and also Muscat and the Persian Gulf; and should the British government of India in their wisdom declare Aden a free port, the merchants of Bombay may say farewell to British commerce with Arabia, as in that event, Aden, as well as Mocha and Muscat, will form an entrepot for American cottons, which will afterwards be circulated in the interior, to the exclusion of British manufactures."

tered with other nations are the production of capital, lobor, or industry; and in the minds of the whole population, the ideas of prosperity and of a slave trade are therefore inseparable. But if all that is coveted could be placed within honest reach in exchange for the produce of the soil, the hands which should cultivate it will never afterward be sold.

"Legitimate commerce," writes Sir Fowell Buxton, "would put down the slave trade, by demonstrating the superior value of man as a laborer on the soil, to man as an object of merchandise. If conducted on wise and equitable principles, it might be the precursor, or rather the attendant, of civilization, peace, and Christianity to the unenlightened, warlike, and heathen tribes, who now so fearfully prey upon each other to support the slave markets of the New World; and a commercial system upon just, liberal, and comprehensive principles, which guarded the native on the one hand, and secured protection to the honest trader on the other, would therefore confer the richest blessings on a country so long desolated and degraded by its intercourse with the basest and most iniquitous portion of mankind."

The average cost of a seasoned slave in Cuba is 120*l.* sterling; but it has been seen that in Enárea and other parts of the interior he may be purchased for ten pieces of salt, equivalent to two shillings and a penny—for a pair of Birmingham scissors, or even for a few ells of blue calico. Hence it is only fair to infer that the hire of the freeman would be in he same ratio; and if so, it must be sufficiently obvious that this cheap labor, applied to a soil not less productive than that of the most favored countries in the world, must enable Africa to raise tropical produce that will beat in every market to which it may be introduced.

Able advocates of the cause of humanity have upon these grounds clearly demonstrated that, in order to suppress completely the foreign traffic in human flesh, it is only necessary to raise, in any more commanding and accessible point, which affords the readiest outlet, sugar, coffee, and cotton, and to throw these yearly into the market of the world, already fully supplied by expensive slave labor. The creation of this cheap additional produce would so depress the price current in every other quarter, that the external slave trade would no longer be profitable, and it would therefore cease to exist.

But few people are more desirous or more capable of trading than the natives of Africa; and the facility with which factories might be formed is sufficiently proved by the reception heretofore experienced in various parts of the continent. Abundance of land now unoccupied could be purchased or rented at a mere nominal rate, in positions where the permanent residence of the white man would be hailed with universal joy, as contributing to the repose of tribes long harrassed and persecuted. The serf would seek honest employment in the field; andthe chiefs of slave-dealing states, gladly entering into any arrangement for the introduction of wealth and finery, would, after the establishment of agriculture, no longer find their interest in the flood of human victims, which is now annually poured through the highlands of Abyssinia.

To descant, therefore, upon the importance of such a communication as the Gochob may prove to the countries in which it is situated, or with which it promises an easy access, would be a work of supererogation. Much has been written, and great praise most justly bestowed, upon the policy which has seen, in many a barbarous location, the future marts of a boundless

and lucrative commerce—the centres whence its attendant blessings—knowledge, civilization, and wealth would radiate among savage hordes. Here are no deserts, but nations already prepared for improvement, and countries gifted by nature with a congenial climate, and with a boundless extent of virgin soil, where the indigo and the tea-plant flourish spontaneously, and where the growth of the sugar-cane, and of every other tropical production, may be carried to an unlimited extent—regions producing grain in vast superabundance, and rich in valuable staples—cotton, coffee, spices, ivory, gold-dust, peltries, and drugs—all, in fact, that is requisite to impart value and activity to exchange."*

## Art. III.—COMMERCE AND RESOURCES OF ALTA CALIFORNIA.

This vast and fruitful territory, which by the energy and promptitude of Commodore Sloat, has lately been added to our wide-spread Republic, is, we understand, to be fortified, (that is, its most important points,) and a naval station to be established at San Francisco. This Bay is probably unequalled for extent of safe anchorage; and from its proximity to the cruising grounds of our twenty millions of dollars' worth of whaling ships, is unquestionably the best position which could be selected for such a purpose, on the shore of the Pacific.

The following important information, obtained from a highly intelligent officer, lately returned from our squadron in those waters, we have much pleasure in communicating, for the benefit of such of our merchants as are or may be engaged in commercial adventures to that quarter; or such of our enterprising fellow-citizens as may be inclined to settle there.

Alta or Upper California is situated between the thirty-second and forty-second degrees of North latitude, and the parts which border on the ocean are between the hundred and seventeenth and hundred and twenty-third degrees of West longitude. Its boundaries on the East have been considered the Rocky Mountains, although the part that has hitherto been settled, is a strip of land on the shores of the Pacific, not exceeding sixty miles in width.

The establishment of Catholic missions was first commenced 1769, by the Jesuits, on the following plan: On one side of the large square stands the church, a suit of buildings for the habitations of the priests, for travellers, and a guard-house; on the other side are granaries, work-shops for various trades, cellars, wine-presses, and separate apartments for the Indian boys and girls; at a distance are the habitations for the adults. Attached to each of these missions is a large garden, orchard, and vineyard. Besides these missions, twenty-one in number—the last of which, San Francisco Soland, was founded in the year 1822—there are four Presidios, or towns, viz.: San Francisco, Monterey, Santa Barbara, and San Diego; two villages, Pueblo de los Angeles and Pueblo de San Jose, and a hamlet called De Branceforté. The garrison of each Presidio comprised about eighty cavalry with a few infantry and artillery soldiers. The Commandant of each Presidio was the Captain of these troops, and decided all disputes, previous to 1822—till then there were no civil authorities.

* The Highlands of Ethiopia; by Major W. Cornwallis Harris, of the Honorable East India Company's Engineers.

The residence of the Governor was Monterey, and he was generally a colonel or captain in the army, and sent from Mexico.

Formerly, all the land belonged to the different missions, and although distant some fourteen leagues, they respectively bounded on each other. The prosperity of these missions was at its height in 1825, at which time they counted from two to three thousand Indians each, and possessed from six thousand to one hundred thousand bullocks each, and an equal number of sheep. The number of horses was so great that many were killed to save pasturage.

Before the year 1822, the trade of these missions was with San Blas and Callao; vessels from these ports were sent here for tallow. The same year, an American vessel arrived in California from Boston, and prepared the way for a trade which has since been carried on almost exclusively with merchants of that port.

A law was passed in 1835, taking from the priests the management of the temporalities of the missions, and giving it to the secular administrators, who in a short time ruined the missions, without essentially benefitting themselves. The land has been divided amongst private individuals, and although the cattle of the missions have disappeared, there are as many hides exported as ever.

Exclusive of countless wild Indians and some Neophytes, California has about fifteen thousand inhabitants, generally descendants of Spanish and Mexican fathers, but mostly Indian mothers. The baptized Indians, released by the demolition of the missions, are hired by the other inhabitants for servile work, while the latter assist each other in the superior labor of their farms. Such of the Indians as were taught the mechanic arts by the Spanish Padres are mostly dead, and none other of their tribes will ever take their places.

The improved farms are held by Mexicans, Californians, and naturalized citizens; the latter become so by merely signing a petition for that purpose, whereupon a letter of citizenship is granted, without an oath or any other formality. These farms, comprising from one to eleven square leagues, were granted to citizens with very little expense. The land adjoining the sea-coast is principally taken up—all that which is immediately around the Bay of San Francisco, and a portion of that on either bank of the Sacramento River. A small part only of those on the River San Joaquim is taken as yet. Some of the mission lands still belong to the Government, as well as other unclaimed lands. Some farms have been abandoned, in consequence of depredations committed by wild Indians, who steal thousands of horses yearly—even out of enclosures, and near dwellings. These Indians have shown but little fear of late, and have shot sevral farmers with their arrows.

There are now about twelve hundred foreign residents in California, mostly settled around the Bay of San Francisco, and on the banks of the Sacramento; three-fourths of these are Americans, and the remainder Europeans. One-third of the males have taken out letters of citizenship, and never expect to speak Spanish, the prevailing language—a knowledge of English being all-sufficient for commercial purposes, even at this early period of the settlement. In 1832, there were less than three hundred foreign residents, and these were sailors who had left their ships or were entrapped by the former government; they have become farmers. The first American settlers arrived on the Sacramento in 1840. The emigrants leave Inde-

pendence, Missouri, (the starting point,) in April or May, and arrive on the borders of the Pacific in October or November, annually. Some petition for farms; others settle on private grants by consent of owners. These emigrants, on leaving Independence, should be furnished (if a family of five or six,) with 1 good wagon, 1 barrel of flour, 200 pounds of bacon, 30 pounds of coffee, 50 pounds of sugar, 20 pounds of rice, 4 yoke of oxen, 3 cows, and a few cooking utensils. Every male person of fourteen years, and upwards, should be provided with a rifle, 10 pounds of powder, 30 pounds of lead, and 200 percussion caps.

After securing his land on either bank of the Sacramento, the setler should prapare his ground at once, and begin sowing his wheat in December. Beans, peas, and corn should be planted in April.

Twelve hundred dollars will start a cattle-breeder in California.

Wheat produces from forty to fifty-fold under very imperfect cultivation. The Spanish Padres of some of the missions have obtained an hundred-fold, and at the mission of San Jose an hundred and eighty-fold was obtained. Wild oats and mustard cover the country; the former to the height of three or four feet, and the latter so high and compact that horses straying amongst it are often lost. Rye and buckwheat have not been proved. Cotton and hemp have been raised, but as yet only in small quantities. Every description of vegetable produces well. Apples, pears, peaches, and quinces, are common all over the country, and in some parts there are limes, oranges, almonds, figs, and walnuts. Plums and cherries have not been tested. Grapes of the finest flavor, and in the greatest profusion grow in different districts. In latitudes south of 34° the best are produced. With imperfect means, wines and brandies are also made in California.

The climate is unsurpassed for salubrity: the lowest rate of the thermometer in the shade, at Monterey, in 1845, was 44°, and the highest 86°, although the common range throughout the year is from 60° to 70°.

Sailing vessels have about thirteen days passage from Monterey to Mazatlan, but double that number on returning. It takes about fifteen days to sail from Monterey to Columbia River, but only five to return.

The entire revenue of California has been received from the custom-house at Monterey, which, for the seven past years, averaged eighty-six thousand dollars.

There were no drawbacks to the trade in California; coins, currencies, weights and measures of England and the United States are in common use.

Imported goods, such as American cotton and woollen manufactures, shoes, hats, furniture, and farmer's utensils; also groceries, crockery and hardware, and China goods, are sold to the dealers and farmers on the coast at a credit of twelve to twenty-four months, payable in hides, tallow, fat, dried beef, lumber and soap.

The Boston ships have generally returned home with twenty to forty thousand bullocks' hides; every dollar of invoice and disbursements, including also a reasonable charge for wear and tear of the vessel, has usually received a hide in return, which is always valued at two dollars.

The tallow has generally been bartered with vessels bound for Callao, for hides.

A considerable quantity of sea-otter skins were formerly collected, and shipped to Canton. They were valued at forty dollars each. The number at present taken is very limited.

In a few years hence there will be exported gold, lead, and a large quantity of quicksilver, also sulphur, coal and slate. The mines of quicksilver are probably the largest in the world, and of the best ore, producing more than 20 per cent, with but small expense of outfit.

Under the government of the United States, with some capital, and an increase of that thriving race, the Anglo-Saxons, California could supply all the Polynesian Islands, together with San Blas, Mazatlan, Acapulco, and the N. W. Coast, with the above-named products, as well as wheat, beans, peas, flour, fat, tallow, butter, cheese, pork, beef, salmon, sardines, horses, mules, spars, boards, shingles, staves, and ships. Already shingles, lumber, spars, and horses are shipped to the Sandwich Islands; and beef, fat, wheat and beans to the Russian settlements on the Northwest Coast, bills on St. Petersburg being received in exchange.

The exports of 1846 will amount to 85,000 hides; 60,000 arrobas tallow; 10,000 fanegas wheat; 1,000,000 feet lumber, also staves and shingles; $20,000 worth of otter and beaver skins; $10,000 worth of soap; 1,000 barrels wine and aquadiente; 200 ounces of gold.

CLASSIFICATION OF DUTIES RECEIVED IN THE CUSTOM-HOUSE OF CALIFORNIA, AT MONTEREY, IN 1844.

| | |
|---|---|
| From Mexican vessels, coastwise from San Blas and Mazatlan | $5,194 |
| From American vessels, from the United States and Sandwich Islands | 60,816 |
| From 2 Russian, 1 French, and 1 Hawaiian vessel | 13,219 |
| Total | $78,789 |

The cargoes of such vessels as were built in the Republic of Mexico, have paid but 15 per cent ad valorem duty hitherto.

LIST OF SHIPPING FROM FOREIGN PORTS AND COASTWISE, ENTERED AT MONTEREY, DURING THE YEAR 1844.

| Number. | Class. | Number. | Occupation. | Number. | Of what Nation. |
|---|---|---|---|---|---|
| 16 | Ships. | 6 | Ships of War. | 28 | U. S. of America. |
| 4 | Barques. | 14 | Merchant ships. | 23 | Mexico. |
| 5 | Brigs. | 7 | Whaling ships. | 4 | France. |
| 4 | Schooners. | 1 | Transp't for Cattle. | 1 | England. |
| | | 11 | Merchant barques. | 1 | Genoa brig of war. |
| | | 10 | Merchant brigs. | | |
| | | 8 | Merchant schooners. | | |
| 29 | | 57 | | 57 | |

LIST OF SHIPPING FROM FOREIGN PORTS AND COASTWISE, ENTERED AT MONTEREY, IN 1845

| Of what nation. | No. | Crew. | Tons. |
|---|---|---|---|
| United States of America | 29 | 482 | 9,455 |
| Mexico | 18 | 205 | 2,620 |
| England | 4 | 66 | 966 |
| Germany | 3 | 33 | 525 |
| France | 3 | 75 | 756 |
| Hawaii | 3 | 24 | 348 |
| Total | 58 ar., 30 ves. | 885 | 14,650 |

Of the above, 5 were ships of war, 5 whaling ships, and 48 merchant vessels, classed in the following order, viz:—Ships, 23; barques, 17; brigs, 8; schooners, 10—total 58 vessels.

The number of men and amount of tonnage is exclusive of ships of war.

ENTRIES AT CUSTOM-HOUSE, MONTEREY, IN THE YEAR 1845.

| | Vessels. | From | Orig'al cost of cargo & outfit. | Val. of cargo in California. | Mos. on coast. | Duties p'd in Mont'y. |
|---|---|---|---|---|---|---|
| Bque. | Guispusmana*..... | Callao | $10,500 | $17,000 | 10 | $5,314 |
| | Clara..... | Acapulco. | 3,000 | 6,500 | 6 | 754 |
| Brig | Fariscia*..... | " | 3,000 | 5,500 | 2 | 667 |
| | Maria Terese*..... | Mazatlan. | 8,000 | 16,500 | 6 | 1,164 |
| | Primevira*..... | " | 5,000 | 9,000 | 4 | 538 |
| Schr. | Julian*..... | " | 17,000 | 33,000 | 4 | 3,584 |
| Brig | Matador†..... | Valparaiso. | 55,000 | Resh'd in part. | 4 | 67,792 |
| | Maria..... | " | 12,000 | " | 2 | 19,407 |
| Ship | California‡..... | Boston. | 85,000 | 70,000 | 12 | 21,240 |
| Bque. | Tasso‡..... | " | 35,000 | 70,000 | 20 | 16,107 |
| | Don Quixote‡..... | Oahu. | 7,000 | 14,000 | 10 | 4,000 |
| Ship | Fame‡..... | " | 6,000 | 10,000 | Lost. | 2,459 |
| | Total..... | | $196,500 | $251,000 | | $143,022 |

* Mexican. † Hamburgh. ‡ United States.

## Art. IV.—THE RUSSIAN TRADE AT KIACHTA.

NOTICES OF THE TRADE CARRIED ON BY THE RUSSIANS AT KIACHTA, UPON THE FRONTIERS OF CHINA.*

THE Russian trade with China, by a treaty made between the two countries in 1728, is confined to the town of Kiachta, on the northern frontier of China, which is thus the sole entrepôt for the exchange of the commodities of both countries. The Russians are prohibited from trading at Canton, in consequence of the privilege they have of trading overland. In the year 1806, two Russian ships visited Canton, after making a voyage of discovery, for the purpose of taking in a cargo of Chinese produce for Russia. The Canton authorities at first refused, but afterwards permitted them to load, at the same time making reference to Peking. Before the answer arrived, the ships had sailed, but an edict was despatched to Russia prohibiting further intercourse, except by the northern frontier. Of late years this trade has become of great importance; and the attention of commercial men, connected with China, has been called to the Russian woollen manufactures, which have begun to compete successfully with those of English manufacture, which formerly supplied the Chinese market.

A few statements, (although necessarily meagre from the want of direct information,) may therefore not be unacceptable.

The great advance which Russia has made in the arts during the last half century, will be partially shown by the fact that, in the years 1793–95, she annually imported cloths to the average amount of 3,978,000 silver roubles; the only woollen manufacture then carried on being coarse cloth for the use of the army; while in 1837–39, the import had nearly ceased, and her own manufactures supplied the internal consumption of the empire, besides a large oriental export, chiefly to China, which, in 1842, amounted to nearly 2,000,000 silver roubles. Again, in 1800, the import of tea into Russia was 2,799,900 Russian pounds; and in 1837–39 the average annual import was 8,071,880 Russian pounds. Forty (40) Russian pounds are equal to 36 lbs. avoirdupois.

* Chiefly derived from the Chinese Repository for June, 1845.

The following statement shows the quantity of woollen cloth exported to China by Russia from 1833 to 1841 :—

EXPORTS OF WOOLLEN CLOTH FROM RUSSIA TO KIATCHTA.

| | *Russian Cloth.* | | *Polish Cloth.* | |
|---|---|---|---|---|
| Years. | Arshines. | Eq. to pcs. of 19½ yds. | Arshines. | Eq. to p. of 19½ yds. |
| 1833..... | 347,176 | 18,305 | 325,040 | 13,305 |
| 1834..... | 555,876 | 22,755 | 247,256 | 10,122 |
| 1835..... | 719,221 | 29,442 | 206.301 | 8,445 |
| 1836..... | 923,936 | 37.822 | 181,519 | 7,430 |
| 1837..... | 789,853 | 32,333 | 26,625 | 1,089 |
| 1838..... | 965,193 | 39,510 | 738 | 30½ |
| 1839..... | 1,218,574 | 49,880 | .... | .... |
| 1840..... | 1,241,433 | 50,806 | .... | .... |
| 1841..... | 1,550,477 | 63,470 | .... | .... |

In former years Russia exported to China the woollen manufactures of Poland, (as will be seen by the above table,) and still earlier, those of Prussia, in addition to her own. Previous to the year 1812, a considerable quantity of English woollens were sent to Russia, intended for the Chinese market. The cost of this cloth was at that time, from 17*s.* to 20*s.* per yard, though the same quantity in 1830 could be had at 10*s.* to 12*s.*, or even less. This trade was stopped by an increase of the duty laid by the Russian government on English cloths and a reduction of that on Prussian cloth.

At present, however, only cloths manufactured in Russia are exported. They are made principally at Moscow and its neighborhood, of different qualities, similar to the English cloths called Spanish Stripes and Habit cloths. They are classed into three varieties: 1. The Mezeritsky cloths; 2. Those of Masloff or Maslovia; 3. Karnovoy cloth; in each of which varieties there are four or five grades of quality, as No. 1, No. 2, &c. The assortment of colors in 100 pieces of Mezeritsky cloth is nearly as follows:—

| | | | |
|---|---|---|---|
| Blue.....pieces | 40 | Pomegranate red.....pieces | 8 |
| Light Blue..... | 10 | Violet brown..... | 4 |
| Black..... | 20 | Scarlet..... | 10 |
| Violet ..... | 2 | Green..... | 3 |
| Yellow..... | 1 | Fashions of the day..... | 2 |

These are packed in ten bales, each having an assortment of the different colors. The first quality of Mezeritsky cloth costs at Moscow 150 to 165 roubles assign: per piece of 25 arshines (6*s.* 9*d.* to 7*s.* 4*d.* per yard;) and the charges from Moscow to Kiachta amount to about 250 roubles assign: per each bale. They measure from 60 to 67 inches in width.

The first quality of Masloff cloth costs at Moscow 7 to 7½ R. assign: per arshine, (8*s.* to 8*s.* 6*d.* per yard;) the length of the pieces 40 to 45 arshines, or 31 to 35 yards; breadth between the list, 67 to 70 inches. They are made up in bales of 8 pieces each. In an export of 1,000 pieces of these two cloths the proportions are, about 750 to 800 pieces of Mezeritsky, and 250 to 200 pieces Maslovia.

Of velveteens (Pleess,) a considerable quantity is annually bartered at Kiachta. They are manufactured in pieces of about 50 arshines in length, (39 yards,) and of two breadths, viz: 10 vershocks and 16 vers: (17½ inches and 28 inches;) the price of the former at Moscow, is about R. 1.40 co: to R. 1.80 per arshine, and of the latter R. 2.80.

The camlets exported to China are principally of Dutch manufacture, a-

very trifling proportion being Russian. The quantity bartered at Kiachta, in 1843, will be found in a table given below.

The other principal articles of Russian export to China are linen goods of a coarse description; leather, skins, and furs. They also send fire-arms, cutlery, corals, mirrors, watches, and divers articles of ornament. The cost of carriage from Moscow to Kiachta is about R. 25 per pood (36 lbs. English.)

REPORT CONCERNING THE BARTER TRADE AT KIACHTA, IN 1843.

| Description of goods. | Bartered. | Rem. on hand. |
|---|---|---|
| Cloth—Mezeritsky.....pieces | 14,565 | 40,883 |
| Maaloffs..... | 2,013 | 5,143 |
| Karnovoy..... | 4,761 | 6,740 |
| Camlets—Russian.....archines | 578 | 177 |
| Dutch..... | 25,600 | 45,784 |
| Linen goods—Tcheshuyka..... | 480,733 | 498,736 |
| Ticking..... | 85,655 | 45,550 |
| Konovat..... | 624 | 16,437 |
| Velveteens—10 vershocks broad..... | 1,074,639 | 1,818,129 |
| 16 " ..... | 92,499 | 126,630 |
| Leather—Goat-skins.....skins | 52,665 | 176,095 |
| Furs—Squirrel..... | 673,364 | 1,140,696 |
| Otter..... | 13,461 | 17,406 |
| Lamb, Bucharian grey..... | 5,549 | 44,921 |
| " " black..... | 8,463 | 48,955 |
| " Ukraine white..... | 155,172 | 646,738 |
| " " piebald..... | 8,580 | 18,344 |
| " " black..... | 2,581 | 28,311 |
| Cat-skins, black..... | 245,006 | 105,847 |
| Lynx-skins, Russian..... | 2,181 | 17,220 |
| " American..... | 4,750 | 8,100 |
| Musquash..... | 72,415 | 18,920 |

A note appended to the foregoing report, states that the amount of trade therein specified, as compared with that of previous years, does not exceed one-third of the average. No cause is assigned for such a great falling-off.

The foreign fur trade at Canton—twenty years ago amounting to a million of dollars annually—is now nearly or quite extinct; on the northern frontier, however, as shown in the foregoing table, there is still an extensive traffic; and were all the facts of the case at our command, we might find that this traffic is annually increasing.

The mode of transacting business at Kiachta deserves particular notice, from its peculiarity. Commissioners are appointed on each side, who fix by regulation the price of every article of import, and of the tea to be given in exchange for it; and not only the price of the tea, but the proportion of each sort to be bartered for the different articles.

The "Chinese Olio" says that "a commission of six members chosen among the Russian merchants, and presided over by the custom-house director, treats for Russian merchandise. Another commission of an equal number of members taken among the Chinese, and presided over by their governor, treats for Chinese meachandise. These two commissions discuss the prices, which, once determined, become law for the merchants of the two nations."

The tea is classed into Family, and Flower tea; both of which are said to consist chiefly of Pekoe, with a slight admixture of other leaves.

In 1843 the Chinese brought for sale 120,000 chests; of which 80,000

were Flower tea, and 40,000 Family tea. The prices, which have been unaltered for years, are—

R. 60 for one chest "quadrat" Family tea.

R. 120 for one chest 3d sort of Flower tea.

R. 80 for one chest "polootornoy" Family tea (i. e. 1½ as large.)

The prices of Russian produce were raised in 1843 from those of former years. Further, it was arranged, (as alluded to above,) that one chest of Family tea is to go along with every three chests of Flower tea.

The nature of the regulations fixing the price of Russian goods at Kiachta, will be shown by an example of the transactions by barter, as follows:—

| | |
|---|---|
| Against the 2d sort of Mezeritsky cloth the Russians receive 9 chests Flower tea, at Rs. 120 per chest . . . | Rs. 1,080 |
| And 3 chests Family tea, at Rs. 60 per chest B. Rs. . . | 180 |
| | Rs. 1,260 |

For which the Russians pay,

R. 1,080 is equal, at the regulation price of Rs. 125 per piece, to . . 8⅔ pieces.

And R. 180 at Rs. 100 per piece, to . 1⅘ "

R. 1,260 nearly 10½ pieces of cloth.

Pursuing the illustration, we will show the result of such a transaction in 1843:—

| | | | |
|---|---|---|---|
| The 10½ pieces of cloth cost at Moscow, in 1842, Rs. 145 cash per piece, making . . . . . | | | R. 1,522.50 |
| Interest for 15 months—15 per cent . . . . . | | | 228.37 |
| Charges from Moscow to Kiachta . . . . . | | | 250.00 |
| Cost at Kiachta of 10½ pieces of cloth, | | | R. 2,000.87 |
| **But the value of tea in Russia in 1843, was** | | | |
| **9 chests Flower tea at R. 555 per chest, at 12 months credit . . . .** | **4,995** | | |
| **3 chests Family tea at R. 455 per chest,** | **1,365** | | |
| | R. 6,360 | | |
| Deduct 12 months interest . | 763.20 | | |
| Duty and charges . . . | 2,265.90 | 3,029.10 | 3,330,90 |
| Leaving a profit of . . . | | | R. 1,330,30 |

In this peculiar traffic we thus see that woollen cloths costing Rs. 2,000 are exchanged for teas estimated at R. 1,260, or at a loss of 37 per cent. But the tea taken in exchange, the nominal cost of which is R. 1,260, realizes a profit of R. 2,070, being 103½ per cent on the actual cost, (R. 2,000,) thus leaving a balance of profit on the transaction of 66½ per cent.*

The prices of tea at Nijni Novgorod in 1843 were (on twelve months credit:)

* The above calculation is copied from a paper written at Nijni Novgorod and communicated from Moscow.

| Description. | | | Weight of chest in Russ. pounds. |
|---|---|---|---|
| Flower tea, 1st sort, per chest | Rs. 705 | | 55, 58, and 60 |
| " 2d " | 655 | | |
| " 3d " | 555 | | |
| Quadrat family tea, per chest | 455 | | 60 a 70 |
| Polootornoy " " | 605 | | 86 a 88 |
| " " 2d " | 535 | a 555 | 81 a 85 |

The third sort of Flower tea is divided into about fifteen "families," sold by retail under different names applied to them by the Russians.

THE CHARGES ON A CHEST OF TEA FROM KIACHTA.

| Specification of charges. | Flower tea, weighing 60 lbs. | Family tea, weighing 65 lbs. | Family tea, weighing 80 a 86 lbs. |
|---|---|---|---|
| Import duty and custom charges | R. 130 | R. 138.50 | R. 160 |
| Commission at Kiachta | 10 | 4.80 | 6.40 |
| Packing in hides | 8 | 8 | 8 |
| Receiving, weighing, and cartage in Kiachta | 10 | 10 | 10 |
| Carriage to Nijni or Moscow | 35 | 35 | 50 |
| Total | R. 188 | R. 191.30 | R. 229.40 |

Besides these different sorts, the Russians receive what is called "brick tea," being tea dust formed by pressure into the shape of tiles or bricks. The greater part of this is consumed in Russian Tartary and Siberia, only a small proportion being carried to the fair at Nijni. It is not used as an infusion, but is stewed with milk, butter, salt and herbs, and eaten as food, as our matrons are said to have used the leaf when it was first introduced into England.

Besides tea, which is the staple article of produce bartered by the Chinese, they bring to Kiachta silks, nankeen cloth, preserves, lacquered ware, &c.

From the secresy which the Chinese maintain on their side of the commercial intercourse, we are unable to estimate the actual cost of the tea at Kiachta, or the expense of transport thither from the place of growth; and consequently have, at present, no means of ascertaining what the articles taken in exchange actually cost them at Peking, as compared with the prices at which they could be supplied by other nations. In 1830, a statement was laid before the Parliament committee on East India affairs, showing the retail price of tea at St. Petersburgh, and the valuations by London brokers, of samples brought over from thence. They were as follows:—

| | Cost at St. Petersburgh. | Broker's valuation in London. |
|---|---|---|
| Black flower tea | 11s. 11d. | 5s. 3d. |
| " | 7 8½ | 4 9 |
| Black family tea | 5 10 | 3 8 |
| " | 3 0½ | 2 1½ |
| Green | 11 11 | No value named, if not being a sort known in London. |

From the statements which we have given, it is plain that the profits of the export trade, and the ability of Russia to compete in the China market with England and other nations in the article of woollens, depends entirely upon the sale of the tea; and if we suppose the above valuations to be correct, or allow somewhat for deterioration of the samples in the voyage from Russia to England, and looking at the price at which woollens

can now be produced in England and Germany, it is equally plain that unless their tea trade was protected by the present prohibitory duties, it would, even allowing for a considerable reduction in the large profits of the Russian importers, be driven out of the field by the merchants of other nations; and that in consequence they could not afford to sell their goods at Kiachta at the present low nominal prices, nor offer competition in the supply of woollens required for the consumption of China Proper. In supplying furs and other articles, suited to the north of China, they doubtless possess advantages over other nations, which would probably secure to them that branch of the trade; but even in that, the United States might offer some competition, as in former years they sent considerable quantities to China, although that trade afterwards dwindled down to a very trifling amoun.

It is said that a part of the tea imported at Hamburgh is smuggled into Russia, where doubtless it yields the contrabandist a handsome profit.

Regarding the other articles of Russian manufacture, sent to Kiachta, we are not possessed of sufficient information as to what description of goods they are, and the prices at which similar articles could be manufactured in the United States or England and other nations, to give any data for a calculation of what the result of a shipment would be, in comparison with those of Russia.

The rigid prohibition of opium, which has so many times been thundered forth against the "barbarians" in the edicts of the emperor of the Chinese dominions, of course extends to the northern frontier, and probably with much the same effect as that resulting from the vigilance of the authorities on the sea-coast. The Russian autocrat issued an ukase to his subjects, forbidding any attempt at its introduction into China; and in their diplomatic intercourse with the Chinese court, the Russian officials take credit to themselves for excluding the drug from their caravans, thus showing themselves in a more favorable light as compared with those nations who persist in bringing it to the celestial shores.

It is nevertheless asserted that the Russian emperor is not averse to his subjects adding that to the other branches of their trade, and that opium is actually smuggled across the frontier by the Tartars who inhabit the neighborhood. We learn by a translation from a continental paper, which appeared in the columns of an English publication, that the idea of this trade was first suggested to the Russian minister of finance in 1838, by a Greek merchant, who was well acquainted with Asiatic commerce. He obtained several audiences of the minister, and by his plausible arguments gained his consent, securing to himself the privilege of transporting his opium as far as Kiachta, for twenty years, at the expense of the state; from which we may safely infer that the emperor's revenues are in some measure assisted thereby. The traffic is of course carried on with too much secresy to allow of any information being obtained by foreigners regarding its extent, and the means by which they secure the connivance of the Chinese officials, if (as is most probable,) it is carried on with their knowledge.

The Bombay Times, 1842, says, "We learn by letter from Smyrna, received by the present mail, that one hundred chests of Turkey opium have been purchased there by a Russian house, and shipped to Odessa, to be thence conveyed overland to Kiachta, and eventually smuggled across the Chinese border." If the existence of such a traffic be true, it is quite pos-

sible that in the event of its becoming known to the emperor, there may one day happen a collision between the countries, the result of which may prove as momentous as that which has sprung from the late hostilities between China and England.*

## Art. V.—THE INVENTION OF THE COTTON-GIN:

### WITH REFERENCE TO ITS EFFECT ON THE PRODUCTION OF COTTON.

The American Journal of Science for 1832 contains a memoir of Eli Whitney, the inventor of the Cotton-Gin, which was prepared by Professor Olmsted, of Yale College. This memoir, together with some reminiscences of Mr. Whitney, by Professor Silliman, has recently been published in pamphlet form; and we trust that Mr. Sparks will soon add it to his "Library of American Biography," and thus give it a permanent place in the literature of the country.

Our object, in referring to the subject at this time, is for the purpose of embodying in the pages of the Merchants' Magazine, the appendix to the present edition of the memoir, which was prepared by D. Francis Bacon, Esq., of New York. Although that gentleman has drawn many of his facts from our Journal, it contains such concise, comprehensive, and well-digested views of the effect of the invention of the Cotton-Gin in the production of cotton in the United States, that we have concluded to republish it entire, well assured that it will be perused with interest by most of our readers.

### THE EFFECT OF THE INVENTION OF THE COTTON-GIN ON THE PRODUCTION OF COTTON.

"The influence of mechanical inventions on the improvement of the human race, and the wealth of nations, is a circumstance which has peculiarly impressed the minds of practical men and of philosophic observers alike, since the beginning of the nineteenth century. Changes in the condition of society and in the intercourse of nations, far more momentous and lasting than the revolutions previously produced by political causes, have, within the last fifty years, been effected by the action of individual minds, in the development of neglected physical facts, and in the application of material agencies to the use and benefit of man. As new wants have been felt, and the needed uses of yet undiscovered powers have been made known in the progress of society, art and science have met each occasion; and the demand for new combinations of matter and motion has been continually answered by widely-various, unwearied invention.

"The application of steam to machinery, to navigation and to land carriage, the invention of the spinning-frame, and of the cotton-gin, are imposing instances of the operation of such causes, so insignificant in their inception, so immensely important in their results, to the convenience and happiness of mankind. The agency of Watt, Fulton, Stevens, Telford, Arkwright, and Whitney, in the production of the present wealth of the world, and in the development of the before-unappreciated resources of the rapidly improving commonwealths and empires of progressive Christendom, has been greater than that of all other human causes. What may have been accomplished by government, by policy and by science, for the promotion of the general good of civilized nations, is little in comparison with

* To the writer of some excellent articles in the Bombay Times, to Mr. Macgregor's work on Tariffs, and to gentlemen in Shanghai and Hongkong, our readers are indebted for the foregoing article.—*Editor.*

the production of these individual minds acting wholly without the sphere of political agencies, and has been wholly subordinate and secondary to it.

"These views of the relative influence and importance of merely personal, private agency, and of national or governmental movements, would have startled the world in the last century, and would have received a contemptuous condemnation; but to the present generation, they have been made familiar by reiteration, almost to triteness.

"The increase of the production of a cheap material for woven fabrics, adapted in some degree to the use of the human race in every climate and region, is a matter of more importance to commerce, and to the interests of civilization, than may appear to a superficial observer. The supply of this primary necessity of man, (hardly less essential than that of food,) with an article capable of being substituted, to a great extent, for every other material hitherto converted into cloth, has been, during the present half-century, by far the most important element in the commercial relations of the United States and Europe,—has been the source of the largest amount of acquired wealth, and has given employment to the greatest aggregate of profitable labor. There is no parallel in history to the changes which the cotton trade has made in the direction of commerce, in the employment of mechanical industry, in the dress, habits, conveniences, and health of mankind, and in the intercourse and mutual dependence of nations. And when it is remembered, that the material was, by the invention of the COTTON-GIN, furnished to the manufacturer with the cheapness, abundance and despatch which insured these great results, it becomes manifest that the importance of this mechanism has not been overrated.

"The memoir, which this statement accompanies, furnishes some facts relating to the consequences of Mr. Whitney's invention to the growth of cotton; but the increase of the production, manufacture, and exportation of that great American staple during the years which have intervened, has created a necessity for an extended view of the statistics of the subject. The limits of the present sketch permit only an outline or abstract of the facts. It is a topic which has largely employed the faculties of commercial writers and statesmen in the United States and Great Britain, the results of whose labors may be obtained from the public documents of the American government, and from the various volumes of Hunt's "Merchants' Magazine,"—a periodical of great merit and value for commercial statistics of this and similar character.

"Numerous statistical tables have been published in works of this description, exhibiting the annual cultivation of cotton in the different states of the Union, and throughout the world, and also showing the amount and value of the exportations of cotton from the United States to the various countries of Europe. The influence of the cotton-gin on the increase and relative amount of American production and exportation, is thus exhibited by a statement of the growth here and elsewhere, in certain years, at fixed periods.

"Tables, exhibiting at great length all the particulars of production and export, for each year, from 1791 to the present time, are given in several articles in Hunt's "Merchants' Magazine," especially in a History of the American Cotton Trade in Vol. IV, page 201, of that work. A document prepared by the Treasury Department in 1836, in obedience to a resolution passed in Congress, presents also very ample and tabular details of the progress of the cotton trade and culture for more than forty years. The Merchants' Magazine contains also a very valuable series of articles on this subject, (by Professor M'Cay, of the University of Georgia,) presenting minute statements of the annual production and exportation of cotton during recent years. (Merchants' Magazine, Vol. IX, p. 516; Vol. XI, p. 517; Vol. XIII, p. 507.) From these, most of the particulars here given are derived; and to these and the American Almanac for 1837, and to the Annual Reports on Commerce and Navigation, prepared by the Treasury Department, the inquiring reader is referred for the complete statistics of the agriculture, commerce and manufacture of cotton.

The grand results, however, may be viewed effectively from a few points of time, selecting the statistics of certain dates, taken at random. In the year 1791,

the whole cotton crop of the United States was but 2,000,000 of pounds. In 1845, (fifty-two years after the invention of the cotton-gin,) it was more than 1,000,000,000 of pounds, (2,395,000 *bales*, averaging above 430 pounds.) In 1791, the cotton annually produced in the whole world was estimated at 490,000,000 lbs., of which the United States, consequently, produced only $\frac{1}{245}$. In 1845, the total supply furnished in the markets of the civilized world, was 1,169,600,000 lbs., (2,720,000 *bales*,) of which the United States produced, therefore, more than SEVEN-EIGHTHS.

"In 1791, the whole amount of cotton exported from the United States was 189,316 pounds,—this being the first definite statement of the kind on record. Previous to that year, the growth and sale of cotton had been so trifling in amount, as to be accounted unworthy of any notice in the statistics of American commerce, or even in those of Southern agriculture. Although it is known that even in 1770 there were shipped to Liverpool THREE bales of cotton from New York, FOUR bales from Virginia and Maryland, and THREE from North Carolina—and though, in 1784, (the year after the Treaty which closed the Revolutionary War and secured the recognition of American Independence by Great Britain,) a vessel that carried EIGHT bales of cotton from the United States to Liverpool was seized in that port, on the ground that *so large a quantity of* COTTON in a single cargo could not be the produce of the United States,—yet there was no decisive improvement in the production or exportation of this article down to the era of Whitney's invention. And in 1792, (the year preceding the invention,) the quantity *exported* was even less than in 1791, amounting only to 138,328 lbs.—a *decrease* of 50,988 lbs. in one year. There was no indication, from 1770 to 1792, of any tendency to a large increase of the production of cotton; and however great the adaptation of the soil and climate of the South to its culture, and however strong the encouragements afforded by the extended demand and high price in Britain and on the European continent, no one, at that time, seems to have expected that this was ever to be one of the great staples and exports of the United States.

"In 1793, the year of the invention, the whole cotton crop of the United States was 5,000,000 lbs., and the total *exportation* 487,600 lbs. In 1794, when the cotton-gin was first extensively introduced into Georgia and South Carolina, (then the principal region of that production,) the whole crop increased to 8,000,000 lbs., and the exportation to 1,601,760 lbs. In 1800, when the machine had been thrown open to the people, without limitation, from regard to the legal rights of the patentee, the total production of cotton in the United States, during the year, amounted to 35,000,000 lbs., of which 17,789,803 lbs. were exported. In 1805, the whole production was 70,000,000 lbs., and the amount of *upland* cotton exported, 29,502,428 lbs.—(value $9,445,000:) In 1810, the crop was increased to 85,000,000 lbs., and the exportation of *upland* cotton to 84,657,384 lbs. In 1815, the whole of the United States crop was 100,000,000 lbs., and the exportation of *upland* cotton 74,547,796 lbs. In 1820, the whole United States crop was 160,000,000 lbs. the exportation of *upland* 116,291,137 lbs., valued at $22,308,667. In 1825, crop 255,000,000 lbs.—exportation of *upland*, 166,784,629 lbs. In 1830, crop 350,000,000—exportation, 290,311,937. In 1835, crop 475,000,000—exportation, 379,000,000. In 1840, crop 880,000,000—exportation valued at $63,870,307. In 1845, the United States cotton crop was 1,029,850,000 pounds, and the exportation of cotton 862,580,000 pounds—the domestic consumption being 167,270,000 pounds.

"The recent annexation of the immense cotton lands of Texas, the abolition of the import duty on American cotton in Great Britain, and the vast rapid increase of the manufacture of cotton fabrics in all parts of the United States, are evidences of the certainty of a further increase in the production of cotton in this country. Enormous as has been the progress of this staple, from 1791 to 1845, it is destined to a yet greater extension in amount and value.

"The exclusion of East India cotton from its previous monopoly of the markets of the civilized world, from the beginning of the present century, was mainly due to the introduction of the cotton-gin in the Southern States of the American Union, which substituted the rapid operations of machinery for the tedious and costly

labor of human hands in the preparation of the crop for the use of the manufacturer. The recent attempt of the British Government and the East India Company to restore the successful production of cotton in Hindostan, have consisted largely in the introduction of American improvements, especially of "THE AMERICAN COTTON-GIN," into those provinces which are adapted to the culture. The greater cheapness of labor, and even the superior quality of the product (in the province of Dharwar) were found to avail nothing, without the advantages of American machinery.

"The pecuniary advantage of this invention to the United States is by no means fully presented by an exhibition of the value of the exports of cotton, (amounting to more than $1,400,000,000 in the last forty-three years,) nor by the immense proportion of the means which it has furnished this country to meet the enormous debts continually incurred for imports from Britain and the European continent—COTTON having for many years constituted one-half, three-fifths, or seven-tenths, of the value of the exports of the Union But it was the introduction of the cotton-gin which first gave a high value and permanent market to the Public Lands in the southwest. The rapid settlement and improvement of almost the entire States of Alabama, Mississippi, Louisiana, Florida, and Texas, is mainly due to the enlarged production of cotton consequent upon the invention of Whitney. The States of Georgia and Tennessee have also been largely benefited by the same means, in the disposal of their domain, a vast portion of which must have remained unoccupied and valueless but for the immense increase of facilities for the preparation of cotton for the market. In the three states of Alabama, Mississippi, and Louisiana, the sales of the public lands of the General Government amounted to 18,099,505 acres, during the eleven years ending on the 30th of June, 1844,—yielding to the National Treasury more than $30,000,000. The sales of upland cotton lands by the United States land-officers, have amounted to many tens of millions of acres; and none have been sold at a lower rate than $1 25 an acre—a large proportion at a higher rate.

"It is to be remarked, finally, that the cotton-gins now in use throughout the whole South are truly the original invention of Whitney,—that no improvement or successful variation of the essential parts has yet been effected. The actual characteristics of the machine, (the cylinder and brush,) the sole real instruments by which the seed is removed and the cotton cleaned, REMAIN, in cotton-gins of even the most recent manufacture, PRECISELY AS WHITNEY LEFT THEM. The *principle* has not been altered since the first cotton-gin was put in motion by the inventor, though great improvements have been made in the application and direction of the moving forces, in the employment of steam-power, in the running-gear, and other incidentals. Every one of the various cotton-gins in use, under the names of different makers, contains the essentials of Whitney's patent, without material change or addition. The brush and the cylinder remain, like Fulton's paddle-wheel, unchanged in form and necessity, however vast the improvements in the machinery that causes the motion.

"A more imposing result of mechanical ingenuity directed to the benefit of a whole nation, and, through it, of mankind, has not been recorded in the history of the human mind. Certainly there is no patriotic American that will not rejoice to accord to this eminently useful, though basely-wronged inventor, the judgment so well-expressed by Mr. Lanman, (Merchants' Magazine, Vol. IV., pp. 208, 209,)—that "Whitney earned the credit of giving a spring to the agriculture of the South, which has been continued, unimpaired, to this day,—a credit that will endure while the cotton-plant whitens the plantations of the South with its snow harvests, or the machinery of the cotton-factory clatters upon the waterfall!"

J. F. Eutz

## Art. VI.—ANNUITIES, LIFE INSURANCE, TONTINES, etc.

NUMBER I.

It is no doubt unknown to many what astonishing and highly beneficial results can be produced, by a judicious and well-regulated system of economizing small sums, and accumulating them at compound interest; and I believe a description of the various practical purposes to which it may be applied will not prove uninteresting. It will, perhaps, scarcely be believed that it is in the power of every individual, in proportion to his resources, to gradually lay up a store, which in the course of years may shelter him from poverty, and render him independent of others, and of the necessity of becoming a burthen to his relatives and friends.

Very few can say, that they have not experienced, in the course of their life, some moments of comparative prosperity—when their income was not more than sufficient to meet actual wants and to satisfy moderate wishes, or when they could not manage to lay aside a trifle for a future day. Can anything be truer than the old saying—"there is an ebb and a tide in every man's affairs?" Now if we had sufficient courage and wisdom to avail ourselves of every opportunity to lay a foundation for the future, there could not be a poor man in this world, except one morally or physically incapacitated to provide for himself.

There is, perhaps, no other country where changes of fortune are so rapid, where the spirit of speculation prevails so much, or where the value of every description of property is more fluctuating:—thousands are seen to fall from affluence to poverty, and vice versa, who would never dread the future, if they provided for themselves while they are able. The rich require but small efforts, but even the poor are not excluded, in proportion to their means, in forming a fund which at some future period, may effectually relieve them, and be quite welcome.

The only difficulty is, that notwithstanding the good example offered us for some years past by several States of Europe, we have no institution in this country in which these benevolent principles are fully carried out, or in which the necessary facilities are granted, so as to make them accessible to all classes of people. Our numerous Savings Banks no doubt do immense good, but they are only the first steps, and are not, by far, all we want, and all we ought to have. Their operations cannot go beyond certain limits—and most, if not all, limit the deposits to a certain sum. When this point is reached, the depositor is obliged to withdraw his money and look out for another investment, which is generally a matter of much difficulty for him, as he has not always knowledge or judgment enough to sele t a safe and profitable employment for it, and frequently becomes the victim of wild speculations, of fraud, and of the instability of almost all kinds of property and undertakings.

We have also Trust and Life Insurance Companies, where annuities and endowments are granted, and deposits of moneys are received, and for which a liberal rate of interest is allowed. In the New York Life Insurance and Trust Company, money can be deposited for any period over ten days, at 4 per cent, for less than two years, and 5 per cent, over two years. Special deposits are likewise received, to accumulate annually, at 5 per cent, compound interest.

Great as the advantages are, which these companies offer for the accu-

mulation and saving of money, they would require many alterations, and a great increase of facilities, perhaps incompatible with their wishes and adopted regulations, to answer the various purposes of which these remarks are the subject.

An institution, combining the operations of a Savings' Bank with those of an Annuity and Life Insurance Office, and provided with a sufficient capital to insure confidence, would be most likely to fill the object, and to become not only profitable to the stockholders, but also very beneficial to all classes of the community. But my intention is only to show what could and should be done, and not to give a pattern of a company, and I will therefore limit myself to a description of the uses and advantages of an office established for the promotion of these principles.

My calculations are based upon an interest of 5 per cent, a rate which would yield a handsome profit to a company on a large scale, and at the same time be perfectly fair. No individual can re-invest immediately the dividends, and as compound interest is the great element in the accumulation of money during a long period, it is much better for him to take 5 per cent, without any risk, than 6, or even 7 per cent, on bonds and mortgages, or bills receivable, which often turn out worthless, or on stocks, the value of which is constantly fluctuating. $1,000, at 5 per cent, compound interest, will produce in 10 years $1,628 90, and in 20 years, $2,653 30, while at 6 per cent, simple interest, in 10 years only $1,600, and in 20 years $2,200. Money will double, at 5 per cent, compound interest, in a little over 14 years, and at 6 per cent, simple interest, in 16⅔ years.

The accumulation of a certain amount, after a number of years, by paying down now a lesser amount, in one sum, or by a number of partial payments, made regularly—annually, quarterly, monthly, etc.,—is called an "endowment certain." A sum now paid, and gradually withdrawn in partial payments, during a number of years, is a "temporary annuity certain." A "deferred annuity certain," is a combination of the two former, by the payment of a present single sum, or a number of annual payments until a certain period, when, instead of the endowment, a future, or as it is technically called, "deferred temporary annuity certain," is obtained.

Annuities and endowments certain are distinguished from contingent annuities and endowments, by the former having no other agent for accumulation than the interest, while, in the latter, the chances of life are also involved. The former terminate at a stipulated time—the latter when death, or some other cause affected by or calculated upon the average mortality, takes place. The first class will be the subject of this communication, and trusting that it will be found sufficiently interesting, I intend to show, in some future numbers of the Merchants' Magazine, the advantages of life insurance and contingent annuities, as applicable for the benefit of any class of people.

The following practical examples will best explain the nature and benefits of

ENDOWMENTS CERTAIN.

1st. $100, paid in a single sum, will amount, at 5 per cent, compound interest,

| | |
|---|---|
| In 21 years, to | $278 60 |
| 15 years | 207 89 |
| 10 years | 162 89 |

By depositing that sum at the birth of a child, it will be entitled to $278 60 when it reaches 21 years; and might be withdrawn at any other time with such accumulation as may have accrued—the money not being lost, as in the case of a contingent endowment.

2nd. $12 per annum, paid

| | Annually. | Quarterly. | Monthly. |
|---|---|---|---|
| will produce, in 21 years | $450 06 | $442 03 | $440 24 |
| 15 years | 271 89 | 267 05 | 265 97 |
| 10 years | 158 48 | 155 65 | 155 02 |
| 5 years | 69 63 | 68 38 | 68 10 |

Therefore, by depositing, from the time of birth until the age of 21 years,

| | $12 annually. | $3 quarterly. | $1 monthly. |
|---|---|---|---|
| the sum would be | $450 06 | $442 03 | $440 24 |

which would be repaid on reaching that age, by which means a capital would be secured for a son to set up business, or a dowry for a daughter, without loss of principal in case of premature death.

3d. On the same principle, if a person wished to secure a sum of $1,000, to be received at the age of 50, or of 60, a single sum, paid

| | 50 | 60 |
|---|---|---|
| at the age of 20, of | $231 38 | $142 05 |
| 30 | 376 89 | 231 38 |
| 40 | 613 91 | 376 89 |
| 50 | ——— | 613 91 |

would produce that result.

4th. The same sum would be obtained by paying annually, beginning

| | | |
|---|---|---|
| at the age of 20, of | $14 33 | $7 88 |
| 30 | 28 89 | 14 33 |
| 40 | 75 72 | 28 80 |
| 50 | ——— | 75 72 |

In both cases the depositor might be permitted to borrow a portion of his own money if he should be in temporary want, so that he would not only provide for the future, but always have the use of his money when wanted.

The great advantages we possess over Europe, in regard to the greater value of money, are plainly seen by the following comparison:—The National Loan Office of London allows to a person aged 20, for an annual payment of $2 60, a contingent endowment or benefit of $269 55, payable on reaching the age of 60, and returning two-thirds of the premiums in case of death. That sum, accumulated for 40 years, would produce,

| | |
|---|---|
| At 3 per cent | $201 92 |
| 4 per cent | 256 95 |
| 5 per cent | 329 78 |
| 6 per cent | 426 52 |

And therefore we could allow, at 5 per cent, $329 78, with the return of all the premiums with compound interest, in case of previous death.

### TEMPORARY ANNUITIES CERTAN.

It is often desirable to set apart a certain sum for a special purpose,—to provide a student with the necessary means for his education at college—to assist a person by an annual contribution for a number of years—or, having other means in expectation after a certain period, to divide a present sum in such annual instalments as will be sufficient for our expenses.

5th. Suppose A., a student, requires for 5 years, annually, $300, payable every 6 months. $150, paid semi-annually, will accumulate, in 5 years, to $1,680 51; or, $1,316 72, paid in a single sum, will likewise produce $1,680 51.

6th. B. leaves a legacy to a friend, of $500 per annum, to continue for 15 years, and payable annually. $500 paid annually for 15 years, are equal to $10,789 28; and a sum reserved for that purpose, of $5,189 86, will, at the end of that period, accumulate likewise to $10,789 28.

7th. In the 3d and 4th examples, an endowment has been obtained, of $1,000; but, as the interest, if re-invested, would only produce $60 at 6 per cent, and as a life annuity at the age of 50 only $85, if a male, or $78 70, if a female, and not being therefore sufficient, it might be desirable to convert it into 5 annuities certain, which would produce $230 97, or in 10 annuities of 129 50.

8th. A. has $10,000, which, at 6 or 7 per cent, would not bring a sufficient income, and be subject to some dangers. With that sum could be obtained,

| | | | |
|---|---|---|---|
| 5 | annuities | certain, of . . . . . | $2,309 74 |
| 10 | " | " . . . . . | 1,295 04 |
| 15 | " | " . . . . . | 963 42 |
| 20 | " | " . . . . . | 802 42 |

commencing the first one year after the deposit. His income would be considerably enhanced, but the principal would be gradually absorbed. To avoid the danger of being left destitute, if he had no other resources, he might, however, purchase a contingent endowment, payable at the end of his annuities, which, if he lived at that period, would reinstate him in the possession of the original $10,000, with which he can renew the same two bargains, and on still better terms; as he would have to pay less for the endowment, being much older, and therefore less likely to live at the expiration of the new term. There being a possibility of his dying before the endowment is due, the premium paid for it would be much less than the increase of income—but his heirs would receive only the balance left of the $10,000, in case of his death.

### DEFERRED ANNUITIES CERTAIN.

By the deposit of one single sum at an early age, or by continued regular annual payments, as in the case of an endowment, quite a considerable income may be secured for old age, with constant means on hand for cases of sickness or temporary want.

9th. With the small amount of $50 a year, an annuity certain can be procured, to commence at the age of

| | 50 | | 60. | |
|---|---|---|---|---|
| | Payable in 10 paym'ts. | In 20 paym'ts. | In 10 paym'ts. | In 20 paym'ts. |
| Commencing at 20 . . | $430 29 | $266 56 | $782 20 | $484 66 |
| " 30 . . . | 214 13 | 132 66 | 430 20 | 266 56 |
| " 40 . . | 81 44 | 50 46 | 214 13 | 132 66 |
| " 50 . . . | — — | — — | 81 44 | 50 46 |

and therefore a person, by saving $1 a week for the space of 40 years, would secure an annual income of $782 20, during 10 years, or of $484 66 during 20 years.

The education of children is frequently a very heavy tax for parents in moderate circumstances. As long as they are small, the expense is still moderate; but when they approach the age of 10 or 12, the outlay is rap-

idly increasing. Now if an early provision were made, and the expense divided and equalized during a longer period, the burthen would be materially diminished, and scarcely felt.

10th. Supposing that a child would require an outlay of $100, annually, from the age of 13 to 18, or 6 payments—18 payments of $24 17, commencing at birth, or 13 payments of $28 65, commencing at the same period, would provide that sum.

Numerous other examples could be given to show the immense advantages produced by such a system of economy and gradual improvement of money, and a variety of cases shown to which they could be applied, but they would require more space than could be allotted to me. I cannot refrain, however, from citing a most admirable plan adopted in France, by the "Banque de Prevoyance," (Bank of Foresight.) This institution receives deposits withdrawn from the Savings' Banks, when they have reached the maximum of 2,000f., ($400,) beyond which no money is allowed to remain there.

The depositors are formed into classes, composed 10 or 12 members of nearly the same age, say from 20 to 25, 40 to 45, &c., and the aggregate received from each class invested, in its name, in government securities, and the stock delivered to the "Caisse de Depôts et Consignation" for safekeeping, where it remains until the class is closed, the Banque de Prevoyance having no control over it, collecting, however, the interest, and crediting it to each class, with a deduction of 3 per cent for commission, which is the only compensation for the trouble.

Some of the classes divide the interest among their members as soon as collected; others accumulate it for 5, 10, or more years. Should one of the members die, his principal remains until only one member survives, and in the meantime all the interest is divided among the survivors, so that their income is gradually and considerably increased. When the class is closed by the death of all but one of the members, the principal is returned to the heirs of the deceased, except when the agreement has been made that also the principal should belong to the survivor, on the Tontine principle.

Berlin, and Stuttgart, in Germany, possess similar societies, though with somewhat different regulations. In the one of Berlin, which was instituted under the direction of the Prussian Government, there are six classes, composed as follows:—1. Members under 12 years of age; 2. From 12 to 24; 3. From 24 to 35; 4. From 35 to 45; 5. From 45 to 55; 6. Above 55 years old. Sub-divisions are made, composed of those joining in each year—their joint deposits being separately administered, and the interest of investments credited to them. A member may take one or more shares, of 100 rix dollars each, and receive annually his part of the interest on each—or he may take one or a limited number of partial shares, to which the interest is regularly added, until it reaches the value of of a full share. When a member emigrates, or dies, his original deposit is returned, with the deduction, however, of whatever has been paid to him in the shape of interest. The effect is, that this deduction increases the fund of the sub-division to which he belonged, and in the course of time such additions to it may cause (as it is expected,) the income to reach 150 per cent of the original deposit.

With some improvements, these plans ought to be imitated in this country, being, in my opinion, based upon sound and benevolent principles.

## Art. II.—LAW OF DEBTOR AND CREDITOR IN LOUISIANA.

NUMBER III.*

PRIVILEGES.—Perhaps there is no branch of the law of Louisiana, of greater practical importance in the every-day affairs of commercial life, than that by which, and under certain circumstances, a priority and preference is given to the creditor for the payment of his claim upon specific property of his debtor.

The provisions of the civil law, in this respect, are widely different from those of the common law. "*Vigilantibus non dormientibus curat lex*," *is* a maxim of the common law, which finds no support in those numerous articles of the civil code by which liens and privileges are created, and provision made for their enforcement, without any express agreement, and quite independently of the contracts of the parties.

The creditor in New York, who, by vigilantly pursuing his claim, secures the first attachment upon his debtor's property, (in a case where an attachment can be made,) or who, by superior activity and energy, obtains the first judgment, (upon which execution is issued, and a levy made,) or the first recorded judgment, which operates as a lien upon the real estate of the debtor in the county of its registration, thinks himself tolerably, if not quite certain of the ultimate payment of his debt, to the extent of the value of the property which he has attached, seized, or recovered by his recorded judgment. Not so the creditor in Louisiana. By superior swiftness in the race, or by exceeding activity and industry, he may obtain the first attachment, or seizure, or sequestration, or the first judicial mortgage; but after he has succeeded, at great expense, and by the exercise of the greatest perseverence and the most indomitable energy, in reducing his debtor's property to cash in the hands of the sheriff, which he imagines is to be forthwith transferred to his own in satisfaction of his debt and costs—lo! an intervention! A *privileged* creditor steps in—one who has all the while reposed upon his rights, that another, by his labors, might facilitate the enforcement of his privilege—and by petition filed in the first creditor's suit, he prays that, after due proceedings are had against his debtor, he may be *first paid* from the proceeds of his debtor's property in the sheriff's hands, and that the sheriff be ordered not to pay over the money, or that he pay it into court, there to abide the order of the court upon the decision of the question of *privilege*. Very vexatious, this—but of daily occurrence in the process of enforcing claims under the laws of Louisiana, and illustrating the importance of some degree of information, by the mercantile community, of provisions so materially affecting their rights and interests.

Anything like a detailed statement of the great variety of liens and privileges granted by the provisions of the civil law, would be here out of place. The design of this article will be, merely to allude to some of the more prominent privileges established by the Louisiana code, and such as are most important to the mercantile community, as affecting the relationship of debtor and creditor.

It is, of course, in the process of collecting debts, either from an insol-

* For No. 1 of the series of articles relating to the Law of Debtor and Creditor in Louisiana, see Merchants' Magazine for July, 1846, (No. 1, Vol XV., page 70–75.) For No. II., see same for November, 1846, (Vol. XV., No. 5, page 471–475.)

vent debtor, or from the insufficient estate of a deceased debtor, that the law of priority, or preference and privileges, becomes of practical importance.

Under the old constitution of Louisiana—(it is said that the new constitution will effect a great reform in this wise. Such was the design, but whether such will be the result, remains to be seen—but under the old *regime*) great indeed must have been the estate of one, whose heirs or representatives had the misfortune of "opening his succession" in Louisiana, if it possessed much *sufficiency*, after it had been subjected to the application of all the classes of privileges which attach to the estates of persons deceased. To say nothing of the privileges of the first class—the expenses of the last illness, and the funeral charges—the *law expenses*, alone, as they are termed, are sufficient to absorb the proceeds of the large majority of successions which are opened in Louisian. First comes the notary, who, in compliance with the requisitions of the law, has placed his seals upon the defunct's effects as soon as he is notified of the soul's flight, and who has subsequently made his inventories, and his *proces verbeaux*, and returned them to the judge. What a glorious fat fee is the notary's! What a curiosity is his bill, when considered item by item—and what an amazement in the sum total! Then come the subordinates of the court—the register of wills, and deputy register, and clerks, and sheriffs—how *many* papers they *do* have to copy, and file, and serve!—But there is no will: the yellow fever has carried off the late possessor of the estate, who, in his anxiety to add another to his aggregated thousands, has remained in the city a day too long. Then must the judge appoint some good, discreet man, to administer the estate—the nearest of kin, or, in the absence of kindred, the largest creditor,—he is the curator. There is the curator of the "vacant succession," as it is called, and there is the curator for the absent heirs; the curators employ attorneys, and there is the attorney for the succession, and the attorney for the absent heirs. And all these are feed—heavens! how they *are* feed! All assessed by the court—all to come out of the estate—all privileged. In due time, the creditors and persons interested are called upon to show the cause why the proceeds of the estate should not be distributed and paid over, in accordance with a beautiful tableau of distribution, and in conformity with the privileges as there classified. To oppose this tableau, to endeavor to reduce the amount of the privileged claims, is the only hope of the ordinary creditor of the succession of an estate, which, in the life-time of its possessor, was ample to pay every debt, and leave a fortune after. But the futility of all attempts to oppose the "homologation" of this "tableau," will be attested by thousands who have resorted to the Probate Courts of Louisiana to obtain the payment of a lawful claim against the deceased intestate, or to demand a legacy, or gather an inheritance devised by the testator. Some idea may be had of the vanity of such a pursuit, from the fact that a fee of five, or even ten thousand dollars, privileged upon the proceeds of the deceased's estate, and to be paid therefrom as a portion of the law expenses, to the attorney of the succession, and to the attorney of absent heirs, was considered a very reasonable and proper fee, in ordinary cases, in which no extraordinary service was required. It may be that these enormities, which were in full bloom a year since, have been somewhat nipped under the new order of things. Heaven grant it! Need enough was there for reform in this matter—for impositions, for years past,

have been practised in the courts of succession in Louisiana, under color of the civil law privileges, upon the estates of deceased persons, impositions upon the commercial creditors of the North, and upon the heirs and personal representatives here, such as are without parallel in the records of the jurisprudence of any other civilized country on the face of the earth.

But, dismissing the subject of privileges upon the property of persons deceased, with this cursory consideration, let us briefly review the more prominent of those which arise in the daily contest between the creditors of an insolvent.

First, of course, in the order of preference, come the "law expenses." If the debtor be absent from the state, leaving no representative, and his property is attached, the court, upon this suggestion, appoints an attorney to represent him, whose duty it is to correspond with the defendant, and to whom time is given for that purpose. The fee for this attorney, whether subsequently employed by the defendant, or not, is awarded by the court, and constitutes a very important item in the "law expenses" privileged upon the proceeds of the property attached. It is said, that this system of appointing attorneys to represent absent heirs and absent defendants, which in past time has been most outrageously abused, and under which creditors and heirs have been subjected to wholesale plunder, has been reformed by the new constitution.

Then come in the privileged claims which in every case may arise, and some of which in every case do arise.

First, is the privilege of married women. This is a subject of such vast importance, that it deserves and must receive a separate article for its consideration. Suffice it to say here, that the Northern merchant, in giving credit to the merchant of Louisiana, cannot ask questions of more vital consequence to his interests than these: Are you a married man? Is there an ante-nuptial, notarial contract between yourself and your wife? For such is the law, that the married woman *may* sweep into her possession every dollar of the property of her insolvent husband, leaving not a shilling for his creditors, without regard to the nature or privileges of their claims.

But suppose that this privilege does not arise. Next comes that of the *lessor*—and most careful is the civil law in establishing and protecting the privilege of the lessor. For the amount due or to become due to the lessor, upon the lease of the building in which the property attached or seized is stored or kept, he has a privilege upon its proceeds, taking precedence of the attaching and every other creditor. He may claim this privilege by intervention in the attachment suit, in any stage of the process. He may enforce it by a "provisional seisure" of the property deposited in his building, (unless the property be owned by some other than the lessee, *and* the building is avowedly leased for the storing of such property,) and he may follow the property in whose hands soever he can indentify it, for fifteen days after its removal from his premises. This is but a passing glance at the privilege of the lessor.

Next comes the privilege of the *vender*. This privilege is oftentimes of vast importance to the creditor. It is a privilege attaching to the specific property sold, for the payment of the unpaid purchase money. In cases in which it may be enforced, it acts strongly in the vigilance of the ordinary attaching creditors, and it may be set up and enforced in the same manner as that of the lessor, either by original suit, or by intervention in the orig

inal suit, in all cases where the specific property is capable of indentification as such, or remains in the possession of the vendee, or where he has not parted with it in *good faith*, and for a *valuable consideration*.

It will at once be seen of how great importance this civil law privilege to the vender may be to the Northern merchants, in their creditor relations with the merchants of Louisiana.

Another privilege, of much importance to the mercantile community, is that of the *consignee, commission merchant*, or *factor*, upon the property of the principal in their hands, for the payment of their expenses, commissions, and advances, and for the *general balance* due them. This claim takes precedence of that of the ordinary creditor, and may be enforced in like manner as other privileges. The salary of the clerk, and the wages of the laborer in the employment of the debtor, are privileged claims upon his property, or its proceeds, taking precedence of those of the general creditors.

By the civil code of Louisiana, many privileges are created of particular and not general, application. Of such are the privileges of contractors artizans, mechanics, laborers, and the furnishers of supplies and materials, upon the buildings by them designed or constructed, or upon which they have labored, or for which they have furnished the materials. Of this nature, also, are the privileges of the overseer, and furnisher of plantation supplies, upon the last and growing crop, or its proceeds, for the payment of their salaries, and the liquidation of their accounts. Of these privileges upon this specific property, nothing can take precedence, save the necessary expense for its preservation, transportation, and conversion into money.

A large class of privileges created by the Louisiana code, and those which are of the most frequent application in contest for preference, are those upon vessels, and especially upon steamboats. These are oftentimes sufficient to absorb the entire proceeds of a steamboat, which has been sold at the suit, and upon the attachment of one of the ordinary creditors of the owners—leaving the attaching creditor, and all others whose privileges are not established by law, nothing to satisfy their claims. Thus, a mortgage upon a steamboat—though the first mortgage—if she is to be subjected to the application of the Louisiana laws, by navigating the river which washes her shores, is inadequate securily for the payment even of a small debt. Your security is dependent upon her good or ill success in obtaining freight and passengers. This you cannot insure. If she is unfortunate, the expenses of navigation are enormous, and soon overwhelm the property. These are all privileged claims, as between themselves, according to a classification of priority fixed by law, but all taking preference of the ordinary or attaching creditor, or the creditor who, by contract of pledge or mortgage with the debtor, has acquired a special property in the vessel. These are the salaries and wages of all the officers, and men and women employed on board—the workmen who have labored in the construction and repair of the vessel—those who have furnished materials and supplies—those who have furnished wood—and those who have furnished provisions. These privileges must be claimed within a certain time prescribed by law, or they are lost, and the claims fall back into the class of ordinary debts.

Enough has been said upon this subject to manifest clearly enough the very great difference which exists between the laws of Louisiana and the other States of the Union, in a matter so material to the relation of debtor

and creditor; and enough to indicate the importance of a more extended information upon this subject in the mercantile community, than now exists. But that portion of the civil law of privileges which is, when considered in its various phases and in all its influences, of the highest importance, is that which grows out of the civil law of the domestic relation of husband and wife. A review of this subject must be reserved for the next article.

## Art. VIII.—LAW OF DEBTOR AND CREDITOR IN ALABAMA.

NUMBER II.*

In the article preceding this, we have given a practical, but brief exposition of the principles of law in Alabama, directly affecting the relation of debtor and creditor. In this, which follows, we propose, in plainly defined divisions, to consider what may be denominated collateral provisions operating upon the rights and remedies of this relation. If we have not done so previously, it may be well here to mention that the common law rule is followed in Alabama in all cases, except so far as the peculiar arrangements of the local institutions, and positive statutory enactments, determine its inconsistency.

### OF FRAUDS.

Fraud in Alabama, which is usually considered in controversies arising upon deeds of trust or mortgages, grows out of expressions on the face of the deed, or from extrinsic facts proved with respect to the motive and conduct of the parties. This fraud may be fraud in fact or fraud in law, positive or constructive fraud. The latter species is that act which the law declares to be fraudulent, without inquiry into the motives, but which carries irresistible evidence of fraud. Great inadequacy of price, however, though indicative of it, would not be regarded in general as evidence of fraud. But in equity, all acts, omissions, or concealments, involving breaches of legal or equitable duty, trust or confidence, and working injury, or effecting undue advantage, amount to fraud. Fraud truly is a question of law; but when the evidence of fraud is furnished by parol, in connection with a deed, fair on its face, it becomes a mixed question of law and fact. Fraud may be made out not only by proof of it in fact, but by the insertion of clauses and stipulations in the deed inhibited by the rules of law. So it may be the result of fair inferences, as where creditors known to the parties capable of being hindered and delayed in the recovery of their debts, are in truth hindered and delayed in consequence of the act. Thus, if a debtor in an insolvent condition, with judgments against him, and others about to be obtained, sells his entire estate to his father-in-law, providing for the payment of only a portion of his debts, and giving a credit for the remainder of the purchase money of from seven to twelve years, the law will presume a fraud, because the tendency is to hinder and delay creditors. The retaining possession by the grantor, after an absolute sale, is also evidence of fraud. When in such case the contract is declared void for fraud, it is void from the beginning; and the deed will not be permitted to stand as security to the grantee, for responsibilities incurred, or advances made. If, nevertheless, the grantee has in good faith made ex-

* For No. I, same subject, see Merchants' Magazine for December, 1846, (Vol. XV, No. 6, page 580.)

penditures of money on the trust property, he may be entitled to reimbursement with interest.

In considering questions of fraud upon the face of the deed and upon extrinsic facts, there arise often questions as to the possession of property, and especially of perishable estate.

The possession of the property in the grantor, if consistent with the deed, is not a badge of fraud; nor would an inference of fraud arise from the mere fact that the property was to remain in the trustee's possession, until he should choose to sell, or be required to do so by the beneficiaries. But still a possession by the grantor for three years, coupled with other unexplained circumstances, might be so considered. And there is no doubt that an execution creditor may compel creditors secured by trust, or mortgage, to close the trust, and distribute the surplus. By statute, also, a creditor may advance the mortgage debt, and have the benefit of the deed; or force the sheriff to levy, on suggesting a fraud, and executing a bond of indemnity.

With regard to the possession of perishable property, there are circumstances under which a debtor *not appearing to be insolvent, or in failing circumstances*, may retain the possession and use of property without the mere fact of some of it being perishable, avoiding the deed itself; but the distinction to be observed in such cases is this—if the reservation to the use of the debtor is positive, or the debtor be in failing circumstances, then the attaching creditor would not be affected by the reservation. A distinction with respect to such deeds of trust or mortgages lays also in the fact, whether the management and possession of the property is retained by the debtor, or the trustee. If the debtor retains the possession and use of the property, it would be, we think, a badge of fraud if he were shown to be in a failing condition; but a conveyance of lands, slaves, mules, plantation utensils, corn, bacon, etc., giving the trustee the management, would not be fraudulent of itself.

It seems to be essential to the passing of title to the trustee, under a deed of trust, and to its validity, that the creditors intended to be secured, assent to it. Until such assent, the deed is revocable by the debtor, and by levy of an execution. The absence, however, of positive assent by the creditors, might not invalidate the deed, *if absolute, of all the effects of the debtor, and providing for the benefit of all his creditors without condition.*

With respect to the consideration of such deeds, when the contest is between a creditor and the trustee, the consideration of the deed is not proved by the recitals of it, or the admissions of the grantor; but must be proved.

It is, doubtless, settled law in Alabama, that a debtor in failing circumstances may prefer a creditor, in executing a deed of trust or mortgage, provided he does not reserve any benefit to himself. Touching the registration of such deeds, the statute law of Alabama requires that, if it be of personal property, it shall be recorded in the office of the clerk of the county court where it is, within thirty days; and if lands, within sixty days. If, however, the deed be made in another State, contemplating no execution in this, as to the rights of an attaching creditor, such deed, as to proof, acknowledgment and registration, will be controlled by the laws of that State where made. The local law has also provided for removals of property encumbered by liens from other States, and from one county to

another; declaring that, in the first case they shall be recorded in the proper office of the county to which removed, within twelve months; and in the last case, within three. A distinction has grown up out of this enactment as to what is an encumbrance. It is the lien placed upon the property by the owner, and who is himself the debtor to be affected. Thus, it seems, it does not affect an ante-nuptial settlement, or deed or will, made by another person than the debtor, for the advantage of his wife and children, etc.

OF PROCEEDINGS AGAINST THE ESTATE OF A DEBTOR AFTER DEATH.

1. *In the case of solvent estates.*

An executor or administrator is exempt from suit for six months after the grant of letters; and within two months after the issuance of letters, is required to advertise for claims against the estate to be exhibited. Claims against the estate are to be exhibited within eighteen months after the issuance of letters, or within eighteen months after the cause of action accrues. The requirement does not, however, exist as to debts contracted out of the State; nor to femmes covert, or infants, or heirs, or legatees, claiming as such. In the pleadings respecting the presentation of claims, the six months during which the representation cannot be sued, are not included in the enumeration of months. But if the plea of non-claim be interposed, and a general replication be made, the burthen of proof lays on the plaintiff. If, nevertheless, he specially reply that advertisement was not made, etc., it shifts the burthen of proof to defendant. Presentment of a claim to one of two representatives, is notice to both. But the mere issuance of a writ is not such a presentment as the statute requires.

2. *In the case of insolvent estates.*

When the estate of a person, real and personal, is insufficient to pay the debts of such estate, the representative is required to file in the office of the court whence issued his letters, a written allegation thereof; and in connection therewith three schedules—one enumerating a statement of all the goods and chattels, and choses in action of deceased, and their estimated value; one a statement of the real estate, its situation, the decedent's interest therein, and its estimated value; one of the various debts due by deceased, and the residence of the several creditors. In not less than thirty, nor more than sixty days, the question of insolvency is heard by the court, notice being by publication or personal service, given to creditors. If no opposition be made, the estate is declared insolvent. An order then issues appointing a day for settlement, not less than thirty, nor more than sixty days. On the day of settlement the creditors meet, and a person is selected, a resident citizen of the State, who acts as administrator *de bonis non*, or the previous representation is continued. Every person holding a claim against such estate, is bound to file the same in the clerk's office, within six months from the time of the declaration of the insolvency of the estate, verified by affidavit. The administrator or a creditor may contest the claim within nine months after the estate is declared insolvent. A settlement shall be made within not less than nine, nor more than twelve months from the time the estate is declared insolvent; and the estate is rulably divided among the creditors, from time to time, as assets are in hand. A suit pending is not abated on plea of insolvency, but the suit is tried on the merits; and if judgment is recorded, it is certified to the Orphan's court as a claim.

## Art. IX.—ACADEMY OF COMMERCE AND NAVIGATION AT TRIESTE.

TRANSLATED FROM THE "GIORNALE DEL LLOYD AUSTRIACO" FOR JANUARY, 1845.

We know not how better to commence a new year's publication devoted to the interests of commerce and navigation, than by turning our attention to an institution having the like objects: namely, our academy of commerce and navigation.

Among the many benefits conferred upon Trieste by our parental government, its unceasing care for the education of our youth is most conspicuous. If we take a retrospect of the last five years, we shall discover, with the deepest satisfaction, a progress which will excite our most lively gratitude. The elementary schools have been increased, and re-organized in conformity to the exigencies of the times. We see rising up in divers parts of the city, edifices, set apart for educating and instructing the rising generation. We can reckon up a great number of new schools, public and private, for each class of our population; an infant school, an agricultural school, and one for arts; a college that affords to parents the advantage of having their sons under their own eyes, while prosecuting the highest studies; and lastly, we see, through the favor of our sovereign, this our academy of navigation, take the rank of a lyceum, with the title of Imperial Academy of Commerce and Navigation.

This rank was the more honorably conferred upon it, as it was the result of a visit from our august sovereign, to this institution of science, on the 15th September last, on which occasion he informed himself of every particular, and deigned to express his great satisfaction.

These benefits on instruction were accompanied by the endowment of a fund, which, placed beyond the risk of loss, enables the not wealthy to obtain from this inexhaustible treasury of knowledge a resource for life.

This academy was first established by his Imperial Majesty, Francis the First, of glorious memory, who created it by degrees in 1808; but from the political vicissitudes of the times, its erection was retarded till the end of the year 1816, when Don Guiseppe de Velpe, author of a manual of technology, was named director; and who, both as director and professor of natural history, physics, and chemistry, until his death in 1840, not only furthered the institution by his knowledge, but also by his wise counsels to the students and artists; who, under his teaching, became expert navigators, brave seamen, skilful manufacturers, and useful members of society. From the beginning, the different professors of the academy were wont to be consulted often by the authorities, as well as by private individuals, in their respective literary and scientific departments, thus affording great assistance to commercial men, artists, and navigators, who resorted to them for advice. An important element of progress was created from this influence, and from the example of the studies and judgment derived from it, independent of the direct advantage from the ordinary scholastic teaching.

We can enumerate a great number of merchants, navigators, and architects, that, thanks to this academy, occupy posts among the most distinguished of our commercial men and mariners: our marine priding itself on so many brave captains, who, fearing no danger, have crossed the Atlantic seas, and carried the Austrian standard to the extreme confines of our hemisphere.

We must now confine ourselves to giving some account of the present state of this academy, which progresses rapidly, and gives promise of more splendid results hereafter. It being the aim of the academy to prepare young men destined for commerce for mercantile navigation, as well as for the various offices of the state, the teaching embraces a quadrennial course, or rather a biennial or school course preparatory to a higher biennial course, and is subdivided into two sections—one of commerce, and one of navigation.

Religion, the sciences, languages, and the more important exercises necessary for who should devote himself to any one general branch, or to commerce and navigation in particular, form the base of the instruction; which, in the first biennial, besides religion, the fount of all knowledge, comprehends arithmetic, algebra, geometry, which supplies the principles of all calculations; geography, with the most essential part of history whence a clear idea of our globe, and the progress of civilization, may be obtained; natural history, which, based on geography, reveals the three kingdoms of nature, and the products which form the subject of the laws of trade and exchange; also the two languages, Italian and Tedescan, for us the most important; and caligraphy and design, which complete the preparation for the most elevated course.

The same studies are pursued, but with greater development, in the succeeding biennial, and are united with their most useful application: such as simple and mercantile account-keeping, mechanics, and the art of sailing, embracing both piloting and nautical astronomy, merchants' ship-building and steering, physics and chemistry, the laws of trade, the science and history of commerce; both mercantile and maritime law, and exchanges; the French and English languages, and the modern Greek; eventually, also, the Illyrian. All these studies are carried forward with a practical view, and, as far as can be, are illustrated by means of natural objects, apparatus, models, and experiments, in a way to make the student more complete in his particular studies, fitting him for his intended employment, public or private.

Every facility is given to the students, especially to the adults, so that mariners, commercial men and artists, can have free recourse to the instructions and teachings after the manner of a free school. For example—young men who have served two years at sea, or five years in cruising, are admitted to the elementary navigation school for five months in the winter, with the ordinary pupils; and for five months in the summer. So, also, the commercial section admits young men of requisite age who may have been engaged a year at least in commerce, and who have attained the necessary preparatory knowledge. To these, the choice of studies is left perfectly free. There is a Sunday-school of design also in the academy for artists.

The whole instructions are given in Italian, and all who are in a condition to avail themselves of it, have only to apply to the Direction, where they will receive all the explanations they may require.

The tendency of this institution is to unite theory and practice, to which end every necessary aid is had.

The academy possesses a museum of physics, chemistry, navigation, naval construction, natural history, technology, caligraphy and design, supplied by the generosity of the government; and is also furnished with

a good collection of instruments, machines, models of ship-building, every object of nature and art, etc., etc. Annexed is a public library of navigation, comprising about 14,000 volumes, which is annually on the increase. A nautical astronomical telescope is about to be provided, for which there is provisionally supplied an apparatus for meteorological and astral observations. An able mechanic, with his requisite tools, completes the whole, and provides for the experimental teaching, in conjunction with the scientific.

The academy enjoys an annual contribution of 2,000f. from the Merchants' Exchange, of Trieste, which encourages the nautical-commercial studies, and 4,550f. from the city, which also provides the locality, and zealously coöperates to promote objects so useful and ornamental to it. The remainder of what is requisite is made up from the imperial treasury. There are four civic pensions, of 100f. each, for students who devote themselves to navigation, and a foundation of 150f. from Count Linzendorff, formerly Governor of Trieste, for ship-building.

The present Director of the academy is the esteemed architect, Giuseppe de Leynain, for many years professor of several sciences, and well known in the literary world. He devotes himself zealously and indefatigably to his office, and has greatly contributed to the progress of the institution, during the last few years. Under his directions the people have manifested greater interest in the academy. In 1837, the scholars numbered only 54, but the last six months they number 170, besides fifty artists, students of design, who are taught on festival days, as already mentioned.

The academy, in addition to the tuition it affords, serves as an organ of art, and practical example for captains, machinists, constructors of steam vessels, etc. By this means, and by special lectures, on practical art, given by Professor Tonello, the Society of Austrian Lloyds is gradually being furnished with native engineers for its steam-vessels.

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## Art. I.—THE CURIOSITIES OF COMMERCE.

### THE CORAL FISHERY.

A WRITER in the London Athenæum, interested in the details of this curious and profitable branch of commercial enterprize, has furnished that journal, from the midst of the scenes in which he participated, the following life-like sketch of what he calls the statistics of the coral fishery.

"There is no port on the Bay of Naples which presents so bustling a scene at this season of the year as Torre del Greco. Hundreds, I may say thousands, of mariners are now here, assembled from various parts of the coast, dressed out in their rich Phrygian caps and scarlet sashes, ready to start for the coral fishery. At last, the weather begins to brighten—the tempestuous sirocco and the roystering tramontana retire within their caves; and, a favorable breeze springing up, soon they "are upon the Mediterranean flote," in little detachments according to their destination. What lamentations may then be heard amongst mothers, or wives, or sweethearts, who have thronged down to Torre to take a last farewell! But courage—a mass has been said, or a candle offered to the Madonna; and now, to complete the "buoni augurij," these loving companions throw a handful of sand after the receding bark—exclaiming, "*Possa andare come una nave degli angeli.*"

"The coral fishery is a source of more profit than is, perhaps, generally known; and is attended with hardships, the bare thought of which might diminish some of that natural vanity with which the fair one contemplates the glowing ornaments that repose upon and contrast with her white bosom. I was standing on the *marina*, when I witnessed such a scene as I have described—a party of gaily dressed mariners, accompanied by women weeping and wailing as our northern females know not how to do. Their short and simple story I soon learnt: and the particulars I now send you as the result of my inquiries.

"Torre is the principal port in the south of Italy for the vessels engaged in the coral fishery, about 200 vessels setting out from hence every year. They have generally a tonnage of from 7 to 14 tons, and carry from 8 to 12 hands; so that about 2,000 men are engaged in this trade—and, in case of an emergency, would form a famous *corps de reserve*. They generally consist of the young, and hardy, and adventurous, or else the wretchedly poor; for it is only the bold spirit of youth, or the extreme misery of the married man, which would send them forth upon this service. For two or three months previous to the commencement of the season, many a wretched mariner leaves his starving family, and, as a last resource, sells himself to the proprietor of one or other of these barks; receiving a *caparra*, (earnest-money,) with which he returns to his home. This, perhaps, is soon dissipated, and he again returns and receives an addition to his *caparra*; so that when the time of final departure arrives, it not unfrequently happens that the whole of his scanty pay has ben consumed, and the improvident or unhappy rogue has some months of hard labor in prospect, without the hope of another *grano* of compensation. Nor does the proprietor run any risk in making this pre-payment; for as the mariner can make no engagement without presenting his passport perfectly *en regle*, he is under the surveilance of a vigilant police. The agreement between the parties is made from the month of March to the Feast of San Michaele, (29th September.) for vessels destined for the Barbary coast—and from March to the Feast of the Madonna del Rosario, (October 2,) for those whose destination is nearer home. Each man receives from 20 to 40 ducats, according to his age or skill, for the whole voyage; while the captain receives from 150 to 400 ducats, reckoning 6 ducats to £1 sterling. These preliminaries being settled, let us imagine them now on the full wing—some for the coast of Barbary, and others for that of Sardinia, or Leghorn, or Civita Vecchia, or the Islands of Capri, San Pietro, or Ventotene, near which I have often seen them, hour after hour, and day after day, dragging for the treasures of the vasty deep. On arriving at the port nearest to the spot where they intend to fish, the "carte" are sent in to the consul; which they are compelled to take again on return. A piastre is paid by each vessel for the magic endorsement of his excellenza—another to the druggist, and another to the medical man; while the captain, to strengthen his power, and in case of some of those gentle excesses which bilious captains are sometimes apt to commit, has generally on board some private "regalo" for his consul. The next morning perhaps they push out to sea, and commence operations; not to return that evening, or the next, or the next, but to remain at sea for a fortnight or a month at a time, working night and day without intermission. The more humane captains allow half of their crews to repose from Ave Maria to midnight, and the other half from midnight to the break of day; others allow only two hours' repose at a time; while some, again, allow no regular time—"so that," said a poor mariner to me, "we sleep as we can, either standing, or as we haul in the nets." Nor do they fare better than they sleep: for the whole time they have nothing—literally nothing—but biscuit and water; whilst the captain as a privileged person, has his dish of dried beans, or haricots boiled. Should they, however, have a run of good luck, and put into port once in fifteen days or so, they are indulged with a feast of maccaroni. These privations make it rather rough work, it must be confessed, for a mariner—especially when it is remembered that it lasts seven months; but if to this be added the brutality of the captains, whose tyranny and cruelty, as I have heard, exceed anything ever recounted to me before, we have a combination of sufferings which go far to justify the description given to me of this service by one engaged in it, as being an "inferno terrestre."

"Now let us view them at work. Every vessel carries about 12 contaj (a contaio being 200 pounds) of hemp to make the nets, which are changed every week. They are about 7 or ten palmi in width, and 100 or 120 palmi in length—worked very loosely, and with large meshes. On being thrown into the sea, the vessel is put before the wind, or else propelled by oars, until those loosely-formed nets have fastened upon a rock. Then comes the tug of war. If the have great good fortune, they will take a piece of 2 or 3 rotoli at a haul, (a rotolo being 33 ounces,) though this is a rare occurrence. In its natural state, the coral is either white or red, or even black externally, from the action of the sea. The white is very rare and very precious; comparatively a small quantity being sufficient to make a good voyage—especially if it be taken "ingrosso," when it will fetch as high as 100 ducati, or more, the rotolo. The red "a minuto" is not very valuable; but if it be "scelta" and "ingrosso," it can be sold for from 25 up to 60 ducati the rotolo. As a rule, however, the round-shaped coral is much more valuable than the tree or the spiral coral.

Full fathoms five thy father lies;
Of his bones are coral made—

So sang Ariel; without, I suppose, intending to lay down any rule as to the depth at which coral may be found. Indeed, it is found at all depths, from 12 to 16 palmi up to 150, or even more. At last, arrives the Feast of San Michaele, or of the Madonna del Rosario. As soon as the day dawns, the nets are slackened; no man will work more, even if treasures are in prospect. So, pushing into land, and taking up their "carte," away they set on their return—many as poor as when they departed; some with a few ducats in "sacco," and a new Phrygian cap, or dashing sash, or some article of finery, for the "innamorata"—all, however, being thoroughly tired out, and injured perhaps in constitution.

"The cargo being deposited in the "magazzin" of the merchant, is sold out to the retail merchants, who flock in from Naples and elsewhere; and is soon transformed into numerous articles of ornament or superstition—crosses, amulets necklaces, and bracelets. And now these mariners have a long repose, till the spring comes round and sends them out again on this odious service—though there are very few who make two or three consecutive voyages of this nature. Many vessels are lost in the season, owing to their long-continued exposure to all kinds of weather, and to their lying in amongst the coral reefs. However prosperous the voyage, life aboard the vessels "*e la vita d'uno cane.*" Yet the service may be regarded as one of the most important in the kingdom of the Two Sicilies; as well for the wealth it annually brings in, as also for the school it offers for training hardy, well-disciplined mariners."

## PRODUCTION AND CONSUMPTION OF SUGAR.

The whole production of the sugar-growing countries of the world, in 1844, is set down at 778,000 tons, of which 200,000 tons were furnished by Cuba alone. In the following year, Cuba produced only 80,000 tons, but the increase from other sources was so great, that the total produce amounted to 769,000 tons, which was very little short of that in 1844. The consumption of sugar in the whole world is estimated at 840,000 tons, of which the United Kingdom consumes about 250,000; the rest of Europe, 425,000; the United States of America, 150,000; and Canada, and the other British colonies, 15,000. The growth of the United States does not exceed 100,000 tons, or about two-thirds of the consumption, and the deficiency is supplied by maple sugar and foreign importation. The difference between the total production of tropical sugar and the consumption of the whole world, is chiefly made up by the manufacture of sugar from beet-root, which now extends annually to 80,000 tons. The surplus stock held in Europe at the end of each year, has been about 130,000 tons; and, notwithstanding the necessity of keeping a large surplus is diminished by the increased celerity of communication, it is considered that a stock of 130,000 tons, upon an annual consumption in Europe alone of 675,000 tons, is not more than a moderate provision against the vicissitudes which attend the growth of the article.

## Art. XI.—COMMERCE, AND THE MISSIONARY ENTERPRISE.

SEVEN or eight years since, a few friends of the missionary enterprise in Scotland, connected with the Scotch establishment, formed the purpose of attempting the infusion of a fresh spirit into the exertions of the Christian Church at large, for the speedier evangelization of the world, by uniting a "friendly competition" of talent and piety in the production of a work less ephemeral than the sermons, tracts and pamphlets, which, during the last fifty years have appeared on the subject of missions to the heathen. With this view they offered a prize of two hundred guineas for the best, and another prize of fifty for the second best essay, "on the duty, privilege, and encouragement of Christians to send the Gospel to the unenlightened nations of the earth." The competition was confined within the United Kingdom, (not a remarkably liberal course for the advocates of universal evangelization) and the first prize was awarded to John Harris, D. D. This essay has passed through numerous editions in England and Scotland, and now (in 1847) we have the fifth American edition, published by Gould, Kendall & Lincoln, of Boston, a handsome duodecimo, of nearly four hundred pages, under the title of "The Great Commission; or, The Christian Church Constituted and Charged to Convey the Gospel to the World." The author of the essay maintains, that commerce is under no small obligations to missionary influence, and that the shipping of the commercial world derives as much advantage from Christian missions as its commerce. We should have been glad if the writer had treated more fully of the bearings of modern missions on commerce. There is reason to fear that they have thus far done more for commerce than that Christiany which must, in the fulness of time, baptize trade with a larger measure of its spirit and principles. We give below all that our author says on "the reflex benefits of Christian missions" on commerce:—

"In vain were all the attempts of the colonial government to establish a commercial intercourse with the Caffre tribes, until the Christian missionary had gained a footing amongst them. But not only does he now form a connecting link in the chain of civilization between the colonies and the Caffres and other tribes —by the introduction of the plough, he is likely to be the means of turning the attention of the aborigines from pastoral to agricultural pursuits; in consequence of which their cattle will no longer prove a source of irritation and conflict with the frontier colonists, and a much narrower compass of land will be sufficient for their comfortable support.

"New Zeland is unquestionably the key to India, on the one hand, as the Cape of Good Hope is on the other. And if, as events increasingly indicate, a wise policy should require our government to enter into a friendly treaty with that country, the measure would be greatly facilitated, if not entirely owing, to the favorable predisposition created in our behalf by missionary influence.

"Up to a very recent period, the South Sea Islands were, in a commercial point of view, a complete blank; but now they are made to contribute to our wants, and to take of our manufactures, to a considerable extent. Sugar is cultivated, and taken in native-built vessels to the colony of New South Wales; and more arrow-root has been brought from thence to England in one year, than had been imported for nearly twenty previous year. Between two and three hundred thousand of the natives are now wearing European clothing, and using European implements and articles, who a few years ago knew nothing of our manufactures.

"The shipping of our country, too, derives as much advantage from Christian missions as its commerce. This will appear, if it be recollected that intercourse between the Europeans and the untaught islanders of the Pacific is always danger-

ous, and has often proved fatal. The adventurous Magellan fell at the Ladrone Islands; Captain Cook was barbarously murdered at the Sandwich group; the ship Venus was taken at Tahiti; M. de Langle and his companions were killed at the Samoas; the Port au Prince was seized at Lefuga; and the crew of the Boyd were massacred at New Zeland. And now, at all these islands, with the exception of the Ladrones, there are missionary stations, where between two and three hundred vessels annually resort; the crews of which look forward with delight to the hour when the anchor shall be dropped in the tranquil lagoon, and they shall find a generous welcome and a temporary home. Here, at the smallest possible expense, the captains can obtain a supply of fresh meat and provisions, refit their vessels, and recruit their crews.

"Formerly, also, when a wreck occurred, the natives hastened to plunder and murder, or reserved those who escaped from the sea for sacrifices. Witness the unhappy sufferers of the Charles Eaton, and the still more recent massacre of Captain Fraser and his crew on the coast of New Holland. But now, wherever Christianity has been introduced, the occurrence of a wreck is the signal for the exercise of the kindest feelings toward the sufferers themselves, and of the greatest zeal for the protection of their property. The Falcon, the Sir Charles Price, and several other vessels, have been cast away at or near such stations; and not only have the captains and others attested that "not a nail was lost, and that all the attention was given to their personal comfort which kindness could bestow, but thousands of pounds have been transmitted to England and America as the proceeds arising from the sale of property saved on such occasions by native activity and zeal. Thus many a Christian missionary is, in effect, a British consul of the most unexpensive and efficient kind; and his congregation a society for the protection of British lives and property; while the missionary enterprise itself, by finding new havens at the antipodes for our fleets, opening new channels for our commerce, and every where multiplying the friends of our country, is eminently conducive to the prosperity of its temporal interests."

# MERCANTILE LAW CASES.

## THE LAW OF PATENTS—CASES OF INJUNCTIONS.

We give below an important opinion of the United States Circuit Court, relating to the Law of Patents, delivered by Mr. Justice Woodbury, and politely furnished by that gentleman, at our request, for publication in this department of the Merchants' Magazine.*

In the United States Circuit Court, Massachusetts District, May Term, 1846. W. W. Woodworth *vs.* J. Hall, *et al.*: W. W. Woodworth *vs.* J. Stone.

In these cases, injunctions were granted, May Term, 1845, and at May Term, 1846, a motion was made in the first-named case, to dissolve the injunction. An opinion was given at the same term, stating the facts, and retaining the injunction as to one of the defendants, but dissolving it as to the other, for reasons applicable to the merits.

Among the objections which were then urged against the validity of the patent on which the claim of the plaintiff was founded, were these:—Because it was signed by H. Sylvester, as acting Commissioner, rather than by Ed. Burke, Esq., the Commissioner; and because the patent had been altered at the Patent-Office since it originally issued.

For further particulars in relation to these objections, and the detailed facts on which they rested, reference can be had to the opinion and case, as drawn up.

At an adjourned session of the same term, held at Boston, in September, 1846, the motion to dissolve the injunction was renewed as to the first case, and a like

* A true copy of the opinion of the Court, delivered by Mr. Justice Woodbury, Sept. 21st, 1846. JAS. R. ROBB, Clerk.

motion made as to the second case, both of which are now to be disposed of. They were founded on the same grounds, accompanied by new evidence, offered under the first objection, to show that Mr. Sylvester, at the time of signing this patent, was not acting under any appointment made by the President, by virtue of the eighth section of the act of Congress passed May 8th, 1792; but, being then chief clerk in the Patent-Office, claimed to be authorized to sign it in the necessary absence of the Commissioner, under the power conferred by the second section of the act of 4th of July, 1836, recognizing the Patent-Office.

In respect to the second objection—the alteration of the patent—it was further proved that a mistake, as to the time it was intended to run when renewed, occurred in the patent itself, as well as the record and copy of it; the proof, at the first hearing, extending only to the copy. Thus it was issued for fourteen years, but was meant to be for twenty-eight, and was afterwards altered to twenty-eight. In answer to this, it was now shown that the Secretary of State subsequently expressed in writing his assent and sanction to the correction of the mistake, though he was not consulted at the time it took place.

The present motion was argued by Giles in suppert of it, and B. R. Curtis against it.

WOODBURY, J.—It is not necessary to go into many of the facts and principles considered in the former motion on this subject, and then disposed of;—but the new and material facts since obtained are to be examined, so far as they may weigh upon the objections, and affect the principles before settled.

The first inquiry now is, whether the chief clerk in the Patent-Office, not in truth having been specially appointed to be acting Commissioner by the President, in the absence of the Commissioner himself, could legally sign this patent, nder the general provision in the second section of the patent law of A. D. 1836. The words of that section, as bearing on this question, are—"The chief clerk, in all cases, during the necessary absence of the Commissioner, or when the said principal office shall become vacant, shall have the charge and custody of the seal, and of the records, books, papers, machines, models, and all other things belonging to the said office, and shall perform the duties of Commissioner during such vacancy."

It is contended by the defendant that this clause empowers the chief clerk to act as Commissioner only when his office is technically, entirely, or *de jure* vacant; and not when he is merely absent from sickness, or other necessary cause, constituting a *de facto* vacancy, only, or a want of the Commissioner present to discharge the duties, arising from some such cause. It is certain that the words here used, looking no farther, appear to countenance the more narrow and limited view of the word "vacancy;" but if we look to the object of the clause—to other sections of this and the succeeding patent act—to the contemporaneous construction placed upon it—to the long acquiescence under that construction, and the great public as well as private interests which have grown up in conformity to it within the last ten years, a broader meaning to the term seems fortified by the whole spirit of the act, and by the analogies of the case.

It is proved as a fact that the chief clerk, since July, 1836, has been accustomed to perform, under this section, all the duties of Commissioner during his necessary absence, and without any new special authority being obtained from the President, under the law of 1792. It has been uniform in the office to consider the word "vacancy" here as meant to cover an actual, or *de facto* vacancy, by a necessary absence from the city; and the act has been construed so as to include as a vancy, for this purpose and object, the want of the Commissioner at the seat of government to discharge his official duties, arising from any necessary cause, rather than the want of him merely, in consequence of his death or resignation.

It is conceded, also, that many patents during that period have been signed, and records certified, by the chief clerk, as acting Commissioner, under the second section of the patent law, and which must become invalid if this one be so pronounced, for that cause.

It is further apparent, from the fourth section of the same law, that, unless this

broad construction be correct, the chief clerk is not empowered to certify copies of the original records and papers, in the necessary absence of the Commissioner, however urgent may be the necessity for them, in the protection of public or private rights. But, by a subsequent act, passed March 3d, 1837, section 2, the chief clerk is clearly and expressly empowered, in the absence of the Commissioner, to give copies of former records supplied where formerly burned. And here it would follow, if necessary absence in the first law is not covered by the term "vacancy," he is not authorized to give copies of original records in the absence of the Commissioner, though he may of records burnt, and supplied again afterwards. This would be a distinction most groundless, and hardly presumable to have been intended. It would likewise follow, that, in the absence of the Commissioner, the chief clerk was to have charge of the seal and records, but could not use them for some of the most common and necessary and urgent business connected with them.

Futhermore, he is placed under oath, and also under bonds, so as to secure the community when he does act; and is, indeed, more safe for the public than a temporary Commissioner selected by the President, as such a one may be under no bonds, whatever;--yet, though under this security, a construction is urged that he has not been trusted by Congress to act in the very cases where a person is trusted by them to act, without security, if selected by the President. And this is the reasoning, too, though he is selected to be chief clerk, rendering him eligible to perform these duties, virtually by the President, in all cases, and often by his express wish. Nor is it any stretch of confidence, extraordinary or unnecessary, for Congress to confer on a clerk, by an act, such a power as the signing of a patent. It is done clearly and expressly, and is conceded to be properly done when the Commissioner dies or resigns, and a technical vacancy exists; and in case of his absence it is done, not for personal favor, but for public convenience: so that persons are not to be delayed in getting patents till a successor be appointed, and arrive, perhaps, from some remote place. So it is conceded to have been done for more than half a century, by a clear grant to the President from Congress, by the eighth section of the act of 8th May, 1792. The danger from the broad construction here, is then no greater than from other powers, admitted already to exist in other ways, in relation to this same subject. But to guard against long absences, without a regular and more responsible head to a Department or Bureau, it is wisely provided, by the act of 13th February, 1793, that the temporary appointment by the President shall not continue over six months at one time, because a regular successor could in that time be procured, and the sanction of the Senate should be asked for filling the office during a longer time; and by the section now under consideration it is contemplated that the temporary head of the Bureau shall act only during the "absence" of the Commissioner which is "necessary," or a vacancy happening in any way; both of which are, of course, likely in all cases not to last longer than six months, in an age when such offices are so much sought after as in this.

Again, in respect to the meaning of the word "vacancy," as used in like cases, it is obvious that the act of 13th February, 1792, looked to it as covering absence and sickness, as well as death or resignation of the regular incumbent, because it speaks of a "vacancy" when referring to the former act, and a temporary appointment for only six months under it, and when that previous act authorized such appointment as much in case of absence and sickness as of death. All of them, then, seem to be covered by the reference, as each constituting a "vacancy"—*de facto*, to be sure, in case of absence and sickness, but still referred to under the generic term of a "vacancy."

There is another circumstance of some importance, not yet noticed, bearing on this question. It is well known to all who have been familiar with the Departments and Bureaus at Washington, that the delay and inconvenience to the public in obtaining temporary appointments from the President, if absent far from the seat of government, as he sometimes is, when the head of Department or Bureau, by sickness or accident, is obliged to be absent from his office, has led sometimes to complaints of a suspension or delay of business of an important charac

ter; and has been contemplated, either by a general law, or as the Department and Bureaus become from time to time re-organized, to provide that the chief clerks in each should temporarily exercise the duties of the heads thereof, while they were necessarily absent. It is obvious that the public would often be much benefitted by such a provision, in cases like the President's being away, so that he could not at once make a temporary appointment; and it is equally obvious that the public can never *suffer* by such an appointment, by operation of law, more than it does now, when made by the President, if not away; nor would such a general provision be either novel or dangerous, considering that in the case of most ministerial offices under the government, such as collectors of the customs and marshals, their deputies, appointed by themselves, can now act for them in their absence, and do constantly perform most important duties at such times.

Hence, when the Land-Office was re-organized, 4th July, 1836, the same day the bill passed re-organizing the Patent-Office, containing the provisions now under consideration, clauses were inserted in both bills, with a view to confer such a power or appointment on the chief clerks in both Bureaus. The clause in respect to the Patent-Office I have already quoted, and have been examining its spirit, and other analogies, in order to see if the broad one covering the present case is not the proper construction of its language and intent. The other clause, in respect to the Land-Office, is on the same subject; but, by a different arrangement of the sentence, is too clear to admit of any different construction from that I have applied to the Patent-Office. In the last, the language is—"And in case of vacancy in the office of the Commissioner of the General Land-Office, or of the absence or sickness of the Commissioner, the duties of said office shall devolve upon, and be performed, *ad interim*, by the Clerk of the Public Lands."

This Clerk of the Public Lands was the chief clerk in the office.

Undoubtedly the object to be attained was alike in both; the inconvenience to be remedied was the same; the risks similar; and it was probably only by inadvertence that less precise language was employed in the patent act than in the act as to the Land-Office.

It is a sound rule, in the construction of statutes generally, that "everything which is within the intent of the makers of the act, although it be not within the letter, is as much within the act as if it were within the letter and intent also." 4 Paige, ch. 252, in Walker *vs.* Devereux, cites 1 Plawd. 366 Dwarris on Stats., 691. It is conceded, however, that the intent must be ascertained by the words that are used, coupled with the mischief to be remedied. But it is a mistake to argue that because ministerial officers can do only what they are specially empowered, [7 Mass. R. 281–3,] they cannot do what, on a fair and liberal, and useful construction of words used by Congress, they are specially empowered to do. The intent of the an act of Congress, as to such offices, is to be gathered from the whole spirit, no less than the letter of the act, as much as it is in other cases.

In both of the provisions we have just been considering, the intention of Congress seeming to have been the same, the action of the chief clerks, or heads of their respective Bureaus, in their absence, is not action without pretence of justification by any express act of Congress, without countenance of any law, and a mere *usurpation*, as it would be, if done under an idea that they can so act, and transcend limited powers by mere construction, as being clerks, and their superiors absent; or as being more convenient, at times, to the public.

But they equally rely here, and for ten years have relied, on explicit and special provisions by Congress to authorize their action in both cases; both provisions being made at the same time, and with a like view, though one uses language not susceptible of a modified or different construction, while the other does not; but language which, at the same time, will fairly bear a construction in conformity with the spirit of the law, and similar to that which must confessedly be put on the other act.

Beside this reasoning and these analogies on the present question, the conclusions which I have formed in favor of the validity of these letters patent, under his objection, are strengthened by some other considerations.

Here a patent is offered in evidence, valid on its face, and objected to only by matter *dehors*, that the acting Commissioner who signs it was not in fact one so acting by appointment of the President. If he had been, it is conceded, the patent is valid; and this was virtually decided by the Supreme Court in 4 Howard, 663, Wilson *vs.* Rosseau, *et. als.*, where this very patent, signed by Mr. Sylvester, as acting Commissioner, was objected to, and upheld. No proof was offered there that he had or had not, received any such appointment; but in such cases, it being legal to have an acting Commissioner, it was presumed he was duly appointed so, and his acts therefore valid. So, in this case, such a presumption would be enough, provided it be not competent to go further, with evidence on the subject, in a proceeding between third persons; the power of the officer himself not being put directly in issue in a proceeding where he is a party. That a person is an acting officer is enough in most cases, even in that of murder, see the cases collected at the last session of this term, in the case of the United States *vs.* Paterson *et. al.*

For like reasons, probably, Justice Story, in this case, when the injunction was granted, intimated that the patent must be bad on its face in order to sustain an objection here about the officer, and Judge Hare countenances to some extent the same idea in his opinion in Smith *et. al., vs.* Mercer, *et. al.*, connected with this same patent, August, 1846, Penn. D. Ct.

These reasons and opinions make it very questionable whether the evidence is competent, or admissible at all in this action, that the acting appointment of the chief clerk was not made by the President himself; and if it is not, the patent on its face, as in the 4th of Howard, must be deemed valid.

I should, however, do injustice to the intrinsic difficulties of this question, and the different reasonings and analogies which have been and may be fairly brought to bear on it, were I not to add that some doubt remains in respect to the results I have reached—though the inclination of my mind is decidedly to sustain the validity of the letters.

The second objection to the patent, on account of its alteration, has been fully considered before, on some different facts, when the motion to dissolve one of the injunctions was made, last Spring. The correction of a mistake, though committed clerically, yet as here in a matter material, was then supposed not to be valid, though made by the Commissioner, unless approved by the Secretary of State. It was not thought necessary, by me, that the patent, after such a correction, should be *re-sealed* or *re-signed* by the Commissioner, he being the officer who did both acts originally. But, as the Secretary of State must by law sign it, as well as the Commissioner, should the patent be altered after he signs it, he must, by analogy, be made aware of any such subsequent alteration, and sanction it, before his signature can be regarded as verifying the amended patent.

No evidence was produced before of his knowledge, and his sanction of this change; but such evidence is now offered, and is probably sufficient, without any entry of the same on the letters patent themselves. That would certainly be a convenient mode of perpetuating the evidence of his sanction; but, no law requiring it, the principle seems to demand nothing beyond his assent to the correction or ratification of it; both of which exist here in writing.

Independent of form, it is in substance very seldom that he interferes at all with the issue or correction of patents; but the Commissioner practically discharges all such duties.

There is still another question connected with this point which might arise, but has not been now pressed. It is, whether a patent so amended could operate, except as from time of the amendment; and, if not so, then those letters, being altered since the bill was filed, cannot avail the plaintiff insupport of it.

Where new matter was inserted not originally contemplated, or corrections made not clerically, it is questionable whether they could relate back to the date of the letters patent; but here it seems they ought to, as much as any like clerical amendments of declarations, or pleas, or judgments, under the statutes of Jenfails.

A different conclusion might be formed, on a fuller examination of the subject, as to third persons who had acquired rights as the patent stood before it was cor-

rected. Unless by its being in a mistaken form as to length of time, the new patent must be considered void; and the *surrender* of the former patents for twenty-eight years, on which it was to be founded, would be considered void, also, till a new patent in proper form issued, instead of the old ones.

I merely glance, however, at these last considerations, without deciding on what has not been presented nor argued, and without going into the subject of the amendments that might then become necessary in the bill.

There has a third question been suggested, but not argued, as not being included in the notice of the motion, and will, therefore, not be examined at this time. It is the power of the Commissioner to consolidate all the terms of fourteen, seven, and seven years, into one patent for twenty-eight years. I shall merely say, that in the case of 4 Howard, before referred to, this patent, thus consolidated, was upheld; though it does not appear that this objection was taken and discussed by counsel or the Court, though the counsel were numerous, and very astute to raise all objections appearing plausible.

The point may still be found a tenable one; but if so, a like conclusion may follow as in the other case just referred to—that if such renewal is void, the surrender of the former patents is likewise void, and recoveries can be had on them as if never attempted to be consolidated.

Finally, it is contended that if any doubt exists as to the validity of a patent, as some assuredly does here, as before stated, the injunction should be dissolved. This may, with some qualification as to other matters connected with the subject, be true in granting an injunction, as laid down in 4 Wash. C. C. 534, if the doubt relate to the merits—that is, the originality or usefulness of a patent, or a patentee's own error in his specification. But when the objection relates to the technical form or signature of papers connected with the letters, and the doubts arise from acts of public officers, and not any neglect or wrong of the patentee, the position seems to me not sound. More especially should an injunction, once granted, not be disturbed for such doubts, when, as in this case, the term for trial of the merits is near; and the allowing such doubts to prevail, even to the extent of dissolving an injunction, might not merely affect the present patent and present parties, but operate injuriously on all other patents and parties where, for the last ten years, by a cotemporaneous and continued construction of the patent law, chief clerks have, under its authority, signed patents or other important papers as acting Commissioner, in the necessary absence of the Commissioner, or made mistakes of a clerical character in the form of the letters.

In my opinion, so far from its being proper, under such circumstances, to dissolve an injunction for doubts on such technical objections, it is rather the duty of the Court, if, as here, mischievous consequences are likely to ensue to others from interfering, and if, as here, legislative measures have been recommended by the public officers, which are pending, to remedy or obviate the possible evil from any public mistakes, not to dissolve an injunction already granted, unless required to do it by imperative principles of law, showing the letters patent to be clearly void. [6 Peters, 244.]

The motion in these cases, therefore, is not granted.

BILL OF EXCHANGE—BILL OF LADING.

In the Fourth District Court, (New Orleans,) Judge Strawbridge. L. A. Benoist *vs.* T. G. Reyburn.

This was a suit brought on a bill of exchange drawn on Seccomb, Brooke & Adams, of this city, dated at St. Louis, and payable ten days after sight; said bill purporting to be drawn on a special consignment of produce shipped on a certain steamboat. The holder of the bill, it appears from the evidence, presented it at the house of Seccomb, Brooke & Adams, and demanded payment. Accompanying the bill of exchange was the bill of lading of the produce drawn upon. The clerk of the drawees requested the bill to be left for the consideration of the house, which the holder refused, and left with the bill, which he had protested for nonacceptance, and on which he now brought suit against the drawer.

C. M. Randall, for plaintiff, contended that the defendant had not negatived the

presumption that he got the produce drawn on; that there was no sufficient proof that there was any such produce, or any bill of lading; that the defendant had not shown that they demanded, or required, the delivery of the bill of lading, if there was any; that this was an ordinary commercial bill which it was the duty of the drawees to accept on presentation.

A. Walker, for defendant, argued that the holder of the bill had been guilty of *laches*. That, by his refusal to leave the bill with the drawees for consideration, as the mercantile usage of New Orleans required to be done in the presentment of bills drawn after sight; and, secondly, by refusing or failing to tender the bill of lading of the consignment at the time of presenting the bill. Applying the principle established by the Supreme Court in the case of Lanfear & Co. *vs.* Blossman, it was contended that the holder of a bill drawn on a special consignment stood to the drawee thereof in the relation of vendor to vendee; that the produce was the thing sold, and the acceptance of the bill the price given; that the holder must first tender the thing sold before he can demand the price; in other words, that the holder of the bill must tender the bill of lading before he can demand of the drawees the acceptance of the draft. The omission to tender the bill of lading released the drawer.

Judge Strawbridge sustained the points made by the defendant; remarking that he understood the law on this point to be settled and well understood long before the decision of the Supreme Court in the case of Lanfear & Co. *vs.* Blossman. That, in all cases of bills drawn on special consignment, law and usage require the holder to put the drawee in possession of the property drawn upon. The neglect to do this, as well as the neglect to leave the bill with the drawees for consideration, exonerated the drawer. Judgment for the defendant.

## COMMERCIAL CHRONICLE AND REVIEW.

VIEW OF COMMERCIAL ENTERPRISE—DEMAND FOR SHIPPING—MANAGEMENT OF THE GOVERNMENT FINANCES—THE NEW TARIFF—MEXICAN WAR—EUROPEAN RAILROADS—RATES OF BILLS IN LONDON—BULLION IN THE BANK OF ENGLAND—STOCKS OF COTTON IN EUROPE AND AMERICA, IN 1845, '46—DELIVERIES OF COTTON FOR CONSUMPTION IN FRANCE AND ENGLAND, IN 1844, '45, '46—CURRENT PRICES OF COTTON IN 1846, COMPARED WITH 1844, '45—IMPORT OF GOODS INTO THE UNITED STATES UNDER THREE TARIFFS—EXPORTS FROM THE UNITED STATES—SPECIE MOVEMENT—QUANTITIES OF TEA AND COFFEE CONSUMED IN THE UNITED STATES, WITH THE RATES AND AMOUNT OF DUTIES—DOMESTIC EXPORTS OF THE UNITED STATES FOR FIVE YEARS, ETC., ETC.

THERE has been little of commercial enterprise during the month, notwithstanding that all the elements of great prosperity are apparent both at home and abroad. All the productions of the United States are in great demand in Europe, and every ton of shipping is put in requisition at high rates of freight to transport American produce to remunerate foreign markets, which have every appearance of continuing their demands for at least a year to come. Money is abundant in the leading cities of the Union, exchanges so low as to admit a renewed import of specie, and all public works as well as monied institutions, as indicated in their dividends, are profitably employing their means. Notwithstanding all these favorable symptoms, the leading commercial men—those who usually give a tone to the markets—by no means evince that speculative boldness of enterprise which is usually exhibited in such a state of affairs. Satisfactory reasons for this inertness may be found in all probability in political causes. The federal government has commenced practically a great and radical change in the conduct and management of its finances,—a change to which we think a great deal too much importance has been attached, but which nevertheless has had the effect of a bugbear in repressing mercantile buoyancy. The new tariff has come

into operation very successfully so far, accompanied by the warehousing system, and notwithstanding the defects in its details, commerce would soon adapt itself to it were it not for the fears of new changes constantly hanging over operators. The Mexican war is also apparently no nearer its termination than when the Mexicans first pushed across the Rio Grande, and the government has asked for a loan of $20,000,000 to carry it through to July, 1848. All these are influences which tend to repress the buoyancy of the markets and check the growing enterprise. In England and western Europe the great railroad speculations that have been swelling in magnitude for the last three years are producing the natural results of overaction. A great and ruinous fall has manifested itself in most west of Europe roads, involving the ruin of many eminent capitalists in most of the leading cities. In Germany, France, and Holland, the number and magnitude of projected roads is very great, and the operations in the shares have led to a demand for money at a time when the constant flow of silver, which is the legal tender of those countries, to Russia, as well as in consequence of the large purchases of grain by those countries, has produced a stringency of the money market. The counterflux of gold from Russia has found a resting place mostly in the Bank of England, and money is cheaper in London than at most places on the continent. In London, the minimum bank rate for money was 3 per cent per annum; at Paris, 5 per cent; Amsterdam, 5 per cent; Hamburgh, 6 per cent. The Bank of France seldom raises its rate of interest above 4 per cent, and so great was the demand at that rate that the Bank of France, on one discount day at the close of October, discounted $17,000,000; a sum larger than it ever did before at one time. Money cannot of course continue so much dearer on the continent than in London for any length of time without producing an export of coin from the latter, and this point was rapidly approaching at our latest dates.

RATES OF BILLS IN LONDON.

| | June 4. | Sept. 4. | Oct. 9. | Oct. 23. | Oct. 30. | Nov. 6. | Nov. 13. | Nov. 19. | Dec. 3. |
|---|---|---|---|---|---|---|---|---|---|
| Amsterdam .... | 12. 6 | 12. 5 | 12. 7 | 12. 6 | 12. 5 | 12. 4½ | 12. 1 | 12. 1 | 12. 1 |
| Antwerp..... | 26. 7½ | 26.10 | 26.10 | 26. 5 | 25.97½ | 26.00 | 25.95 | 25.90 | 25.85 |
| Hamburg..... | 13.13½ | 13.13 | 13.13 | 13.12½ | 13.12½ | 13.11½ | 13.11½ | 13.11½ | 13.11½ |
| Paris..... | 26.00 | 26.00 | 25.85 | 25.72½ | 25.70 | 25.65 | 25.65 | 25.62½ | 25.67½ |
| Vienna..... | 10. 9 | 10.10½ | 10. 9 | 10. 7 | 10. 7½ | 10. 8 | 10. 6½ | 10. 6 | 10. 5½ |
| Silver..... | 4.11 | 4.11½ | 4.11½ | 4.11⅝ | .... | .... | 5.00 | 5 00½ | 5.00½ |
| Dollars, new.... | 4. 9½ | 4. 9½ | 4. 9½ | 4. 9½ | .... | .... | 4.10½ | 4.10½ | 4.10½ |

The fall on Paris is very great from September 4, being 42½ centimes per pound sterling. The price of silver has also risen 1*d.* per oz. with a good demand. The variation in the exchanges, according to the published weekly formula, is as follows on Paris:—

| | Oct. 9. | Oct. 23. | Nov. 6. | Nov. 13. | Dec. 3. |
|---|---|---|---|---|---|
| English mint price of gold..... | 77.10½ | 77.10½ | 77.10½ | 77.10½ | 77.10½ |
| Price in Paris, per mille..... | 16. | 16. | 16. | 15½ | 16. |
| Resulting exchange..... | 25.55 | 25.55 | 25.55 | 25.54 | 25.55 |
| Actual rate at Paris on London..... | 25.77½ | 25.70 | 25.65 | 25.60 | 25.67½ |
| Gives gold dearer at London than Paris..per ct. | 0.87½ | 0.58 | 0.39 | 0.23 | par. |

Down to the 3d December, or in the space of five weeks, gold fell in London as compared with Paris 0.87½ per cent, and bills were still falling with a languid demand. It requires now but a slight continuance of the decline to promote an export of coin from England. Some £45,000 were shipped in the last week of November, and a considerable decline had taken place in the specie held by the bank, as follows:—

BULLION IN THE BANK OF ENGLAND.

| | October 3. | October 17. | October 24. | November 7. |
|---|---|---|---|---|
| Gold coin and bullion... | £12,532,794 | £12,122,882 | £11,868,690 | £11,724,111 |
| Silver bullion ..... | 2,727,001 | 2,618,763 | 2,568,555 | 2,511,774 |
| Gold and siver coin..... | 456,831 | 401,403 | 456,661 | 524,624 |
| Total..... | £15,816,626 | £15,143,048 | £14,893,906 | £14,760,506 |

The decrease in this period was over £1,000,000, mostly in gold coin, partly for payment of wages on the works in Ireland undertaken by the government for the relief of the destitute, and partly in consequence of the usual enlargement of the specie circulation which takes place in the fall of the year, when the farmers bring in their new crops. The prospect now is, that an export will take place to the continent to some extent, as well as to the United States. The rise in prices of food may partially create the enhanced demand, as well as the railroad speculations. The French roads appear now to be calling in instalments to a very considerable extent. At the close of October, the Paris northern line advertised a call of $15 per share for the 2d of January, and $10 for the 1st of July. The two calls amount to $6,000,000; and as the shares, as is usual in times of speculation, were in the hands of weak holders who had hypothecated them, they were obliged to sell out. Four large capitalists, viz.: three peers of France and a manufacturer, were forced to sell out. The Lyons road also made a call, and was followed by others, and thirteen roads have made calls for $31,000,000, payable within a year. These large calls on a restricted money market caused a kind of panic, aided by the state of political affairs between England and France. The latter cause was somewhat modified by the fact that the English minister, Lord Normanby, had called upon the Duke and Duchess Montpensier, a fact regarded on 'change as a renewal of a good understanding between the governments. Nevertheless the fall in the value of the shares of nineteen French roads equalled $46,000,000, and was productive of some uneasiness.

In a former number we gave a table of the capital authorized in England for the construction of railroads, amounting to the incredible sum of over $1,000,000,000, part of which was in process of expenditure, and had resulted in greatly enhancing the consumption of all necessaries and comforts by the people. It has been a curious result of the payment of money wages to the destitute of Ireland, that the consumption of sugar and tea had increased in those districts very perceptibly. It is doubtless measurably owing to the railroad expenditures that the scarcity of food exists both in western Europe and England. The people have been enabled to consume more of the necessaries of life than usual, as well vegetable food as other dutiable articles, all which have shown so decided an increase; and in considering the probable extent and continuance of the English demand for food, these facts should be borne in mind. As thus, if the present demand arises *solely* from a short crop, it may be supposed to be quite temporary, and to cease with the return of favorable seasons. If, however, it grows also to a considerable extent out of increased consumption, consequent upon the improved condition of the people, it is not only permanent in its nature, but susceptible of a great increase. There is no doubt but Great Britain by itself, is, in respect of the higher descriptions of grain, well supplied, as compared with the supplies of former years, but also that the consumption of wheat and wheat-flour by those *accustomed* to consume is much greater than usual; and farther, that

owing to the positive deficit of potatoes in Ireland, and of beans and peas, as well as rye, in Europe, that the consumption by those not hitherto accustomed to consume wheat, is large. The quantity of foreign flour taken into consumption in a few months is nearly equal to 2,000,000 barrels; notwithstanding which, the mills all over England are in a state of the utmost activity, the demand for flour good, and the prices of animal food very high. The corn trade of the world, as connected with the English demand, has suffered violent vacillations in a few weeks from a very singular cause, viz.: the most profligate conduct on the part of the London Times newspaper. It is known and admitted that that is the most powerful and influential journal in the world. It enjoys the reputation of being in the confidence of the government, and as such it enjoys an unusual degree of influence, which it exerted for three successive weeks in September and October to promote a panic, through the most exaggerated statements in regard to an alleged approaching famine. These statements materially aided the advance in prices, which reached a level of 63*s.* 3*d.* for wheat, for the week ending November 7. Just before the sailing of the American steamer of November 4, however, it suddenly changed its views, and pronounced the alarm in relation to the crops as "wholly without foundation," and also predicted the receipt of some 5,000,000 quarters of foreign grain in England before January, 1847; an exaggeration as great in the opposite direction as had been its previous alarm notes. The effect of this appeared to be, although the statements exhibited too little acquaintance with facts to influence those familiar with the trade, to induce farmers to thresh freely and send to market to avail themselves of the high prices, importers to meet the market freely, and buyers to restrict their purchases in anticipation of the low prices which the great supplies predicted by the Times were to bring about. These combined circumstances created a pause in the market, and influenced the New York and United States markets generally on their arrival here, and prices fell to $5 for flour, but subsequently recovered themselves. The effect of this seemed to be only to hurry the consumption of the English supplies, and will result in a greater demand for foreign supplies towards the close of the year. The French government were also stimulated into large purchases for the consumption of that country by the frightful statements in regard to the prospective wants of England. All the indications are, however, that the demands for United States produce are not of a purely temporary character, arising from the mere failure of the harvest, but are of a permanent character and likely to lead to great results. The greatest drawback at this time on the trade, is the want of adequate tonnage to transport the produce at rates sufficiently cheap to allow of a fair proportion of the sales falling to the share of the farmer. Hence, notwithstanding the great sales that have taken place during the fifteen months ending with December, 1846, the real means of the farmer have not been materially enhanced.

The scarcity of food in England and Europe does not now apparently produce its usual effects in diminishing the price or the consumption of cotton; a fact which corroborates the evidence, that the demands for food arise from increased consumption. The supply of cotton for the year ending September 30, was less than the demand; a fact clearly indicated in the diminished stocks, which were as follows:—

STOCKS OF COTTON, SEPTEMBER 30.—BALES.

| | Holland. | Antwerp. | Hamburg. | Trieste. | France. | England. | U. States. | Total. |
|---|---|---|---|---|---|---|---|---|
| 1845..... | 15,000 | 24,000 | 16,000 | 30,360 | 88,900 | 937,490 | 68,985 | 1,179,335 |
| 1846..... | 6,000 | 8,000 | 6,000 | 22,700 | 54,000 | 652,800 | 77,186 | 826,686 |
| Decrease | 9,000 | 16,000 | 10,000 | 7,600 | 34,900 | 284,690 | .... | 353,149 |
| Increase. | .... | .... | ... | .... | .... | ..... | 9,101 | ..... |

The decrease in stocks is general and large, arising from enhanced deliveries for consumption, which in France and England have been as follows, for ten months, ending October 31 :—

| | 1844. | 1845. | 1846. |
|---|---|---|---|
| France..... | 1,191,309 | 1,316,420 | 1,360,364 |
| England..... | 318,916 | 370,857 | 376,496 |
| Total bales..... | 1,510,223 | 1,687,277 | 1,736,860 |

This increase is equal to 16 per cent, or 256,000 bales, and this at a time when food has been high. Prices have felt this state of affairs, and are higher than for three years, being at Liverpool as follows:—

CURRENT PRICES, NOVEMBER 13, WITH THOSE OF 1845 AND 1844.

| | 1846. | 1845. | 1844. |
|---|---|---|---|
| Bowed ordinary..... | 4⅛ a 5⅛ | 3⅛ a 3⅝ | 3 a 3⅝ |
| " middling ..... | 5⅛ a 5⅝ | 4 a 4⅛ | 4 a 4⅛ |
| " fair ..... | 5⅝ a 6 | 4⅛ a 4⅛ | 4⅛ a 4⅜ |
| " good fair..... | 6 a 6⅛ | 4⅛ a 4⅝ | 4⅜ a 4⅞ |
| " good..... | 6⅛ a 6⅛ | 5 a 5⅛ | 5 a 5⅛ |
| Orleans and Mobile—ordinary..... | 4⅞ a 5⅛ | 3⅞ a 4 | 3 a 4 |
| " middling..... | 5⅛ a 6 | 4⅛ a 4⅜ | 4⅛ a 4⅜ |
| " fair..... | 6⅛ a 6⅜ | 4⅜ a 4⅝ | 4⅛ a 4⅜ |
| " good fair..... | 6⅛ a 6⅜ | 5⅛ a 5⅛ | 5⅛ a 5⅛ |
| " good..... | 6⅜ a 7⅛ | 6 a 6⅜ | 5⅜ a 6⅛ |
| " ch. gin'd marks..... | 7⅛ a 8⅛ | 7 a 8 | 7 a 8 |

These prices average 20 per cent higher than last year, when they were slightly in advance of those current at the same time in 1844. The quantity exported last year was 1,666,792 bales, or 666,716,800 pounds, worth the price of fair New Orleans in November, or an average of $66,842,000. The crop of this year will afford but a less quantity for export, and if estimated at 1,500,000 bales, will, at the price of fair Orleans, at Liverpool, November 13, be worth $72,000,000, or over $5,000,000 more than the crop of last year, under the supposition that no farther advance will take place. The cotton interest will therefore receive no detriment from those occurrences that are enhancing the welfare of the western farming interest. From all these circumstances it results that large imports must be made in payment of the produce sold abroad, even if the import trade is confined strictly to returns of produce sold, and it is highly probable that to admit of these returns the value of imports will, for the coming year, be considerably enhanced. It is not probable, however, that any speculative imports will take place to any extent beyond what will be paid for by the exports. The modification of the tariff will probably affect the imports in no other way than by admitting goods bearing low duties, instead of an amount of specie, which might be forced home were goods excluded. That is to say, if a certain amount of produce is sold abroad, it is clear that the proceeds must come home; if, then, the tariff excluded goods or taxed them too highly, the medium of remittance would be specie; if the taxes are relaxed, goods will take the place of specie, and the government revenue be enhanced. On many goods, however, French manufactures in par-

ticular, the duties are raised by the new tariff, and therefore the enhanced sales to that country are more likely to be paid in specie, more particularly, as we have seen, that the exchanges are in favor of France as relates to England. In former years, more particularly 1839, when the duties on French goods were very low, the imports from that country were very large, and were paid for by bills on England, and those bills running on London in favor of France on American account added seriously to that drain upon the Bank of England which so nearly jeopardized its existence in October, 1839. The new tariff appears to change the relations between the three countries, inasmuch as that by raising the duties on French wines and silks, and lowering those upon British goods, it encourages a direct trade between England and America, and tends to check that with France. Indeed, the trade has hitherto always been in favor of the United States against England, and in favor of France against the United States, and England has paid France the balance. The course of the French government has always been commercially hostile to the United States;—while the latter have admitted French goods at very low duties, France has nearly prohibited United States produce. The French wine and silk interests will now exert themselves to procure a modification of the duties on American produce, particularly tobacco.

It is doubtless true that the import of goods under the new tariff will be larger than were the tariff of 1842 to remain in operation, and that the import of specie will be less than would have been the case. We apprehend, however, that the operation of the sub-treasury law, with its specie clause, will, until the commercial community have become accustomed to it, tend to prevent any extraordinary import of goods, how low soever may be the duties. The following are the official figures for the imports and exports for five years, ending June 30, 1846:—

IMPORT OF GOODS INTO THE U. STATES, UNDER THREE TARIFFS.—YEAR ENDING JUNE 30.

| | 1841. | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|---|
| | Compromise act. | Tariff of 1841. | | Tariff of 1842. | | |
| Ad valorem duties. | $54,610,642 | $49,209,085 | $16,684,875 | $52,315,991 | $60,191,869 | $60,660,653 |
| Specific " . | 27,315,804 | 29,325,516 | 12,494,340 | 31,352,863 | 34,914,882 | 36,963,784 |
| Free ..... | 61,031,098 | 28,540,470 | 13,254,258 | 18,936,455 | 18,077,598 | 20,290,097 |
| Total..... | $122,957,544 | $96,075,071 | $42,433,464 | $102,604,606 | $113,176,966 | $117,914,944 |

EXPORTS FROM THE UNITED STATES.

| | 1841. | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|---|
| Domestic produce. | $96,348,386 | $91,799,942 | $77,698,355 | $99,531,774 | $98,453,230 | $101,718,042 |
| Foreign free goods. | 3,953,054 | 3,129,285 | 1,669,306 | 2,251,550 | 2,413,060 | 2,343,699 |
| " ad valorem | 2,126,592 | 2,842,762 | 1,869,257 | 1,706,906 | 2,107,393 | 2,702,251 |
| " specific.... | 2,091,659 | 2,041,692 | 1,567,315 | 2,256,302 | 3,064,439 | 2,880,396 |
| Total..... | $104,529,691 | $99,812,981 | $82,825,233 | $195,475,532 | $106,040,111 | $109,582,948 |

SPECIE MOVEMENT.

| | 1841. | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|---|
| Foreign specie.... | $7,287,846 | $3,997,799 | $1,413,919 | $5,970,809 | $7,762,694 | $3,481,417 |
| Domestic specie... | 2,746,486 | 1,170,754 | 107,429 | 183,405 | 844,447 | 423,851 |
| Total export specie | 10,034,332 | 4,878,553 | 1,521,348 | 5,454,214 | 8,606,489 | 3,905,268 |
| " import " | 4,988,633 | 4,087,016 | 22,390,335 | 4,330,429 | 4,070,943 | 3,777,732 |
| Excess of import.. | ..... | ..... | 20,796,987 | 393,215 | ..... | ..... |
| " of export... | $5,045,699 | 791,537 | ..... | ..... | 4,536,257 | 127,536 |

It appears that the import dutiable goods was, in 1846, $96,924,234, and the duties netted to the Treasury $26,712,667, or 27½ per cent average. The Secretary estimates the receipts at $27,835,731 for the year ending June 30, 1847; of which, five months will be under the old tariff, and seven months under the new; and for the year 1848, $28,000,000, which supposes an import of $112,000,000

dutiable goods—an increase of $16,000,000 over 1846, if the average of the new tariff is 25 per cent. The average duty under the first year of the tariff of 1842 was 35 per cent, and it has annually diminished to 27½ per cent. The large export of farm produce last year raised the export of domestic goods to $3,400,000 in excess of the previous year, notwithstanding that the export of cotton was 420,000 bales less—probably worth $12,600,000. For the coming year, the value of the cotton exported will be enhanced beyond that of 1846, as well as breadstuffs, and the domestic exports may reach $116,000,000 of produce; the returns of which would naturally swell the imports: but it may be questioned how far the operation of the specie clause of the Independent Treasury bill will, by keeping the currency dear, and promoting a demand for coin, favor the import of specie rather than dutiable goods. The effect of a dear currency is to diminish the prices of goods, and in consequence check importations. It is also proposed to impose a duty of 25 per cent upon tea and coffee, estimated to yield $2,946,557; and the Secretary makes an allowance from this sum of $446,000 for a reduction of consumption consequent upon the duty. It is a general rule true, that the imposition of a duty, by raising the price, diminishes consumption; but the rule is not strictly applicable: duties and prices may be diminished, and the consumption also diminish from the general depression of business, and inability on the part of consumers to purchase their usual supplies at any price. The following is a table of the quantities consumed under former rates of duty, and the product of those duties:—

QUANTITY OF TEA AND COFFEE CONSUMED IN U. STATES, WITH RATES AND AMOUNTS OF DUTIES

| | COFFEE. | | | TEA. | | |
|---|---|---|---|---|---|---|
| | Lbs. consumed. | Duty per lb. | Am't duty. | Lbs. consumed. | Duty per lb. | Am't duty. |
| 1822.... | 14,282,982 | 5 | $714,149 | 5,430,630 | 30.87 | $1,676,247 |
| 1823.... | 18,603,330 | 5 | 930,166 | 6,796,364 | 30.90 | 2,105,256 |
| 1824.... | 20,368,450 | 5 | 1,018,432 | 7,107,677 | 33.30 | 2,368,306 |
| 1825.... | 22,357,721 | 5 | 1,117,886 | 6,555,629 | 33.53 | 2,198,787 |
| 1826.... | 26,449,356 | 5 | 1,322,467 | 8,816,225 | 34.00 | 3,026,140 |
| 1827.... | 31,895,217 | 5 | 1,594,760 | 5,372,956 | 33.32 | 1,800,849 |
| 1828.... | 37,258,879 | 5 | 1,862,943 | 6,803,667 | 34.40 | 2,313,767 |
| 1829.... | 35,735,610 | 5 | 1,786,780 | 5,397,664 | 33.73 | 1,820,706 |
| 1830.... | 37,121,910 | 5 | 1,856,095 | 6,141,808 | 33.28 | 2,044,318 |
| 1831.... | 79,010,212 | 1.97 | 1,557,981 | 5,459,293 | 31.75 | 1,733,778 |
| 1832.... | 46,603,576 | free. | 363,492 | 8,826,905 | 14.1 | 1,243,597 |
| 1833.... | 75,057,906 | " | ..... | 12,927,043 | free. | ..... |
| 1834.... | 44,346,505 | " | ..... | 13,193,553 | " | ..... |

It is observable that under a duty of 50 per cent, which was nearly the equivalent of five cents per pound, the consumption of coffee doubled; and in 1844, when free, it was but little more than in 1830 under a 50 per cent duty. In the same manner, tea paid but 30.87 cents average per pound, in 1822, and the consumption in 1824 was 50 per cent more at a high duty; and with a reduction of one cent per pound, in 1827, the consumption decreased 40 per cent. These figures do not justify the Secretary in allowing a reduction of 17 per cent for the diminution of consumption consequent upon a 25 per cent duty, when the duties on all other articles are to be reduced. There is another feature in the case which would indicate a much larger consumption on the principles laid down by the Secretary. It is this: all the coffee and tea consumed carry with them a quantity of sugar. Probably one pound of coffee and one pound of tea are consumed with seven pounds of sugar. The tax on the three, under the tariff of 1842, was 17½ cents; the tax under the new tariff will be 7½ cents. If 25 per cent is added upon the tea and coffee, the duties on the three will be 15½ cents, 2 cents per pound less

than under the tariff of 1842; and consequently, if the theory of the Secretary is correct, the consumption of all three must be greater. It is clearly of no consequence to the consumer of tea or coffee whether he pays the duty upon the sugar or the coffee. In taking it off the sugar and putting it on the coffee or tea, is simply favoring the Spanish West Indies at the expense of the Brazils, as well as Louisiana and Texas. Sugar it is true, is used for very many purposes other than tea and coffee, but the quantities of the latter consumed without sugar are small. The more of the latter there is consumed, the greater will be the demand for sugar, and with a 25 per cent tax on them, the prepared beverage, as we have stated, will be taxed 2 cents less than under the tariff of 1842. Another great consideration is this: the foreign market for farm produce being good, the means of the farmer to buy increase, and with the general enhancement of the business of the country as a result of improved agricultural prosperity, the consumption of those tropical productions may be supposed to increase even at advanced prices. The following is a table of the domestic exports of the United States for five years:—

DOMESTIC EXPORTS OF THE UNITED STATES, FOR FIVE SUCCESSIVE YEARS.

| THE SEA. | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|
| *Fisheries.* | | | | | |
| Dried fish or cod fisheries | $567,782 | $381,175 | $699,836 | $803,353 | $699,559 |
| Pickled fish or river fisheries, [herring, shad, salmon, mackerel] | 162,394 | 116,042 | 197,179 | 208,654 | 230,495 |
| Whale and other fish oil | 1,315,411 | 804,774 | 1,464,968 | 1,590,363 | 946,398 |
| Spermaceti oil | 333,114 | 310,768 | 344,930 | 975,195 | 697,570 |
| Whalebone | 225,388 | 257,461 | 463,096 | 762,643 | 583,870 |
| Spermaceti candles | 318,907 | 243,308 | 180,493 | 226,917 | 205,606 |
| | 2,823,010 | 2,112,548 | 3,350,501 | 4,567,124 | 3,453,398 |
| THE FOREST. | | | | | |
| Skins and furs | 596,487 | 453,869 | 742,196 | 1,246,355 | 1,003,009 |
| Ginseng | 63,702 | 193,870 | 95,008 | 177,146 | 237,562 |
| | 660,189 | 647,739 | 837,204 | 1,423,501 | 1,240,571 |
| *Product of Wood.* | | | | | |
| Staves, shingl's, b'rds, hewn timb'r | 2,203,537 | 1,026,179 | 1,672,279 | 1,951,223 | 2,319,443 |
| Other timber | 253,931 | 211,111 | 326,945 | 369,505 | 394,979 |
| Masts and spars | 37,730 | 19,669 | 23,274 | 28,692 | 21,482 |
| Oak bark and other dye | 111,087 | 30,536 | 70,370 | 75,616 | 61,382 |
| All manufactures of wood | 623,718 | 391,312 | 919,100 | 677,490 | 957,790 |
| Naval stores—tar, pitch, rosin, &c. | 743,329 | 475,357 | 818,698 | 814,969 | 1,085,713 |
| Ashes—pot and pearl | 802,741 | 641,004 | 1,140,848 | 1,210,496 | 735,689 |
| | 5,518,262 | 2,794,170 | 5,808,712 | 5,154,990 | 5,506,677 |
| AGRICULTURE. | | | | | |
| *Products of Animals.* | | | | | |
| Beef, tallow, hides, horned cattle | 1,212,638 | 1,092,949 | 1,810,551 | 1,926,809 | 2,474,906 |
| Butter and cheese | 386,185 | 508,968 | 758,829 | 878,865 | 1,063,087 |
| Pork [pkld] bacon, lard, live hogs | 2,699,403 | 3,120,090 | 3,235,479 | 2,991,984 | 3,883,884 |
| Horses and mules | 299,654 | 212,696 | 315,696 | 385,488 | 389,382 |
| Sheep | 36,592 | 29,061 | 27,834 | 23,948 | 30,303 |
| | 4,566,772 | 3,963,694 | 6,149,379 | 6,206,393 | 7,833,864 |
| *Vegetable food.* | | | | | |
| Wheat | 916,616 | 264,109 | 500,400 | 336,779 | 1,681,975 |
| Flour | 7,275,256 | 2,763,073 | 4,759,488 | 5,398,593 | 11,666,609 |
| Indian corn | 345,150 | 281,749 | 404,008 | 411,741 | 1,186,663 |
| Indian meal | 617,817 | 454,166 | 641,039 | 641,552 | 945,081 |
| Rye meal | 194,396 | 65,631 | 104,391 | 119,906 | 136,110 |
| Rye, oats, oth. small grain, & pulse | 175,082 | 106,640 | 133,477 | 177,953 | 638,221 |
| Biscuit or ship bread | 323,750 | 312,232 | 366,603 | 266,294 | 366,668 |
| Potatoes | 85,844 | 47,757 | 74,108 | 129,926 | 69,934 |
| Apples | 32,945 | 32,925 | 51,465 | 81,306 | 69,253 |
| Rice | 1,907,387 | 1,695,796 | 2,182,468 | 2,160,456 | 2,564,991 |
| | 11,903,652 | 6,955,908 | 11,238,441 | 9,810,506 | 19,269,895 |
| Tobacco | 7,540,755 | 4,650,979 | 8,397,255 | 7,469,819 | 8,478,270 |
| Cotton { 1845, 872,905,996 lbs. / 1846, 547,557,055 lbs. } | 47,593,484 | 40,119,806 | 54,063,501 | 51,789,819 | 42,767,341 |
| *All other Agricultural products.* | | | | | |
| Flaxseed | 34,991 | 49,406 | 23,749 | 81,978 | 165,426 |
| Hops | 36,547 | 122,745 | 51,880 | 80,341 | 41,893 |
| Brown sugar | 8,690 | 3,435 | 19,363 | 11,107 | 7,226 |
| Indigo | 1,042 | 198 | 1,176 | 70 | 60 |
| | 81,470 | 176,784 | 96,636 | 123,496 | 214,455 |

| MANUFACTURES. | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|
| Soap and tallow candles | $485,128 | $407,105 | $619,544 | $623,946 | $630,041 |
| Leather, boots and shoes | 168,926 | 115,355 | 204,000 | 328,091 | 346,516 |
| Household furniture | 290,996 | 197,989 | 327,938 | 277,488 | 317,497 |
| Coaches and other carriages | 48,509 | 48,036 | 63,931 | 55,891 | 67,713 |
| Hats | 65,883 | 39,843 | 75,649 | 70,597 | 74,728 |
| Saddlery | 25,986 | 17,653 | 34,552 | 29,847 | 24,357 |
| Wax | 103,696 | 137,532 | 278,039 | 234,794 | 169,790 |
| Spirits from grain | 50,708 | 21,395 | 56,607 | 75,108 | 73,716 |
| Beer, ale, porter, and cider | 54,674 | 44,064 | 59,312 | 69,583 | 67,735 |
| Snuff and tobacco manufactured | 525,490 | 278,319 | 536,600 | 538,498 | 695,914 |
| Linseed oil & spirits of turpentine | 34,775 | 29,434 | 65,476 | 92,514 | 159,915 |
| Cordage and cables | 30,467 | 22,198 | 49,242 | 55,016 | 62,775 |
| Iron—pig, bars, and nails | 190,454 | 120,923 | 132,592 | 77,669 | 122,295 |
| Castings | 68,507 | 41,180 | 54,596 | 118,948 | 107,995 |
| All manufactures of | 920,561 | 370,581 | 528,212 | 649,109 | 921,632 |
| Spirits from molasses | 247,745 | 116,537 | 241,604 | 216,118 | 268,638 |
| Sugar, refined | 291,499 | 47,245 | 128,594 | 164,662 | 302,312 |
| Chocolate | 3,094 | 2,038 | 2,150 | 1,461 | 2,177 |
| Gunpowder | 161,292 | 47,068 | 130,923 | 122,599 | 140,879 |
| Copper and brass | 97,021 | 79,234 | 91,446 | 94,736 | 92,668 |
| Medicinal drugs | 130,313 | 106,436 | 166,805 | 212,837 | 200,505 |
| *Cotton Piece Goods.* | 3,934,643 | 2,293,983 | 3,851,834 | 4,099,838 | 4,921,995 |
| Printed and colored | 385,050 | 358,415 | 385,403 | 516,943 | 380,549 |
| White | 2,297,964 | 2,575,049 | 2,298,800 | 2,343,104 | 1,978,331 |
| Nankeens | ..... | ..... | ..... | 1,174,038 | 848,989 |
| Twist yarn and thread | 37,325 | 57,312 | 44,421 | 14,379 | 81,813 |
| All other manufactures of cotton | 250,361 | 232,774 | 179,156 | 280,164 | 255,799 |
| | 2,970,690 | 3,223,550 | 2,898,780 | 4,327,928 | 3,545,481 |
| Flax & hemp, all manufactures of | 1,038 | 396 | 311 | 14,762 | 12,139 |
| Wearing apparel | 53,219 | 28,845 | 117,570 | 39,653 | 45,140 |
| Combs and buttons | 34,711 | 23,927 | 30,778 | 23,794 | 25,945 |
| Brushes | 1,925 | 4,467 | 5,963 | 2,906 | 3,110 |
| Billiard tables and apparatus | 1,800 | 415 | 2,534 | 1,551 | 1,583 |
| Umbrellas and parasolls | 5,838 | 4,654 | 6,514 | 2,583 | 2,447 |
| Leather & morocco skins not sold per pound | 22,502 | 26,782 | 39,197 | 16,363 | 25,667 |
| Fire engines and apparatus | 19,611 | 20,530 | 36,943 | 12,660 | 9,808 |
| Printing presses and type | 1,304 | 6,684 | 17,050 | 26,774 | 43,783 |
| Musical instruments | 16,253 | ..... | ..... | 18,309 | 25,375 |
| Books and maps | 44,846 | 23,643 | 42,432 | 43,998 | 63,567 |
| Paper and stationery | 69,362 | 51,391 | 83,108 | 100,190 | 124,597 |
| Paints and varnish | 27,370 | 28,994 | 44,060 | 56,165 | 52,182 |
| Vinegar | 10,208 | 7,555 | 8,215 | 14,375 | 17,489 |
| Earthern and stoneware | 7,618 | 2,907 | 4,984 | 7,393 | 6,531 |
| Manuf. of glass | 36,748 | 25,348 | 77,860 | 96,760 | 90,850 |
| tin | 5,682 | 5,096 | 6,421 | 10,114 | 8,092 |
| pewter and lead | 16,789 | 7,121 | 16,018 | 14,404 | 10,979 |
| marble and stone | 18,921 | 8,545 | 19,135 | 17,636 | 14,234 |
| gold, silver & gold leaf | 1,323 | 1,905 | 2,638 | 3,229 | 3,660 |
| Gold and silver coin | 1,170,754 | 107,429 | 183,405 | 844,446 | 493,851 |
| Artificial flowers and jewelry | 7,638 | 3,069 | 6,761 | 10,435 | 24,490 |
| Molasses | 19,040 | 1,317 | 3,922 | 20,771 | 1,531 |
| Trunks | 3,916 | 2,072 | 7,481 | 3,336 | 10,613 |
| Bricks and lime | 5,728 | 3,883 | 12,833 | 8,701 | 12,578 |
| Domestic salt | 39,064 | 10,962 | 47,755 | 45,151 | 30,590 |
| | 4,614,401 | 492,765 | 817,367 | 1,477,049 | 1,101,872 |
| Lead { 1845, 10,188,094 lbs. / 1846, 16,827,766 lbs. } | 323,498 | 492,765 | 595,238 | 342,646 | 614,516 |
| Wool, 668,386 lbs | ..... | ..... | ..... | ..... | 203,996 |
| *Articles not enumerated.* | | | | | |
| Manufactured | 506,976 | 470,961 | 1,600,099 | 1,969,336 | 1,379,576 |
| Other | 1,350,163 | 575,199 | 854,497 | 1,315,578 | 1,490,363 |
| | 1,888,996 | 1,045,460 | 2,454,517 | 2,584,916 | 2,869,939 |
| | $92,969,996 | $77,793,783 | $99,715,179 | ..... | ..... |

It is here remarkable that farm produce has increased in value near $1,000,000, and cotton has declined $9,000,000 in export value, and cotton goods have diminished $1,000,000. Sheep's wool has, however, become an important item, reaching over $200,000, and 668,386 pounds in quantity. The diminished quantity of cotton sent forward begins now, in a second year of short production, to tell upon prices, and the prospect is high prices throughout the year.

# COMMERCIAL REGULATIONS.

## UNITED STATES TARIFF.—REGULATIONS AND INSTRUCTIONS.

THE following Circular of Instructions to collectors and other officers of the customs, relative to the Tariff of 1846, which went into operation on the 1st of December last, is published in this department of the Merchants' Magazine, for the benefit of importing merchants:—

CIRCULAR INSTRUCTIONS TO COLLECTORS AND OTHER OFFICERS OF THE CUSTOMS.

*Treasury Department*, Nov. 25, 1846.

For the government of the respective officers of the customs in carrying into effect the provisions of the annexed act of Congress, approved 30th July, 1846, entitled "An act reducing the duty on imports, and for other purposes," the following instructions and regulations are issued, and a strict compliance therewith enjoined.

In view of inquiries submitted, it becomes proper to state, that the before mentioned act goes into operation and effect on the *first* day of December next, and not the second, in conformity with a decision upon a similar question of construction by the Supreme Court of the United States.

The fourth section of the act provides that the expense of weighing, guaging, or measuring, shall be paid by the owner, agent, or consignee of the goods, under certain specified circumstances. Whenever, therefore, the invoice shall not contain any weight, quantity, or measure, as the case may be, and, likewise, when those quantities may be stated in the invoice, but not so stated in good faith, but, on being properly tested, are found to fall short of the true amount to an unreasonable extent, after making due allowance for any difference between the mode of determining quantities under our laws by weight, guage, or measure, and that of the country or place from whence the merchandise may be imported, and where good reason should exist for the belief that the quantity was incorrectly given in the invoice by design, and with intention to evade payment of the proper amount of duty, then in all such cases, the expense of the services referred to must be defrayed by the owner, agent, or consignee.

If any quantity, weight, or measure, be stated in the invoice or entry, it nevertheless becomes necessary, as required by the instructions of the department, under the warehouse act, issued on the 14th of August last, to weigh, guage, or measure the article, to ascertain whether the quantity be correctly given in the invoice or entry. If the quantity thus ascertained is found to exceed that given in the invoice or entry, the aggregate cost or value must be made to correspond with such increase of the quantity, and the duties estimated and assessed accordingly. But in no case are the duties to be levied on an amount less than the invoice value.

Where the weight, guage, or measure shall have been duly ascertained on any goods deposited in warehouse, and such goods be withdrawn either for consumption or transportation to another port of entry, in less quantities than the entire importation, the expense of weighing, guaging, or measuring any such portions or quantities must be paid by the owner, importer, or agent, whenever it becomes necessary to perform either of those acts in order to ascertain the dutiable value of any such goods withdrawn from warehouse as aforesaid.

When articles of the description before mentioned are transported in pursuance of law, to be re-warehoused at another port of entry, they need not be again weighed, guaged, or measured, in going into warehouse at the transportation port, as the quantities specified in the certificate required by law to accompany the same may be deemed the true quantities, unless special and sufficient reasons should exist to render, in the judgment of the collector, another ascertainment necessary.

The bounty to be allowed from and after the 1st day of December next, in pursuance of the fifth section of the act, on the exportation of pickled fish of the fisheries of the United States, *if cured with foreign salt*, will be at the rate of 2½ cents per bushel, or 56 pounds on the salt used in curing said fish. To entitle the exporter to bounty, a strict compliance must be had with the requirements of the "Act laying a duty on imported salt, and granting a bounty on pickled fish exported," &c., approved 29th July, 1813.

The following decision, heretofore made on points submitted under the sixth section of the act, it is deemed proper to incorporate with these instructions, viz: All goods which may arrive in port prior to the *first* of December next, but which may remain on board the

vessel on that day or the day following, will be subject to the rates of duty prescribed by the tariff act of 30th August, 1842, unless entered and bonded for warehousing prior to the 1st of December. If the vessel should not arrive in time for the importer to complete the warehouse entry and give bond before the 1st of December, due notice on his part that he desires to avail himself of the lower rate of duty prescribed by the revenue act of the 30th July, 1846, will be sufficient; the peculiar circumstances justifying a constructive warehousing in such cases; such notice to be given before the 1st of December.

Goods remaining in public store on the *second* day of December will be subjected to the rates of duty imposed by the act of 30th July, 1846, whether the rates under said act be higher or lower than the rates chargeable by law at the time of the arrival thereof; provided such goods were imported after the passage of the act of 30th July, 1846.

Importers therefore, to avail themselves of the duty imposed by the act of the 30th August, 1842, must pay the duty before the 1st day of December, if the goods are in the public stores.

The seventh section of the act allows goods, wares, and merchandise to remain in the public stores for the space of one year without payment of duty. The year will therefore commence on the day on which entry of the vessel in which the goods are imported is made at the custom-house. Where goods remain in warehouse beyond one year, as aforesaid, without payment of the appropriate duties and charges thereon, they must be appraised and sold in conformity with law and the instructions of the department issued under the warehousing act on the 14th of August last. No interest on the duties becomes chargeable in the case of any goods imported after the passage of the act of 30th July, 1846, if the duties are paid within the year prescribed by law. Goods imported since the passage of the warehouse act of 6th August, 1846, and carried to public stores *as unclaimed goods*, may be entered at any time before the expiration of one year from the date of importation, and be exempted from any charge of *interest* on the duties.

The additions authorized by the eighth section to be made by the owner or consignee, or agent, "in the entry to the cost or value given in the invoice" where goods have been actually purchased, as also the costs and charges referred to, must be added at the time of making entry of the goods, and cannot be done subsequently. This privilege is obviously intended to afford the party an opportunity to relieve himself from the additional duty imposed by this section, where the apprised value shall exceed by 10 per centum, or more, the value "so declared on the entry;" consequently any such additions made as aforesaid are not obligatory upon or to control the judgment of the appraisers in estimating the value of the goods in question, who are, nevertheless, required to make appraisement of the same in conformity with the provisions of existing laws.

The principle upon which the appraisement is based is this—that the actual value of articles on ship-board at the last place of shipment in the United States, including all preceding expenses, duties, costs, charges, and transportation, is the foreign value upon which the duty is to be assessed. The cost and charges that are to be embraced in fixing the valuation over and above the value of the article at the place of growth, production, or manufacture, are,

1st. The transportation, shipment and transhipment, with all the expenses included, from the place of growth, production, or manufacture, whether by land or water carriage, to the vessel in which shipment is made to the United States. Included in these estimates is the value of the sack, package, box, crate, hogshead, barrel, bale, cask, can, and covering of all kinds, bottles, jars, vessels, and demijohns.

2d. Commission at the usual rate, but in no case less than 2½ per cent, and where there is a distinct brokerage, that to be added.

3d. Export duties, including such duties at all places from the place of growth, production, or manufacture, to the last place of shipment to the United States.

4th. Cost of placing cargoes on board ship, including drayage, labor, bill of lading, lighterage town dues, and shipping cargoes, dock and wharf dues, and all charges to place the article on ship-board.

Discounts are never to be allowed in any case except on articles where it has been the uniform and established usage heretofore, and never more than the actual discount positively known to the appraiser.

The freight from the last place of shipment to the United States is not to be included in the valuation, and insurance is also excluded by law.

The eighth section provides, in certain cases, for an addition of "20 per cent ad valorem on such appraised value." This 20 per cent is, as the law declares, an addition of a duty of 20 per cent on the appraised value, and not a per centage upon the duty. Thus if the duty upon such appraised value be 20 per cent under the law, the addition of 20 per cent would raise the duty to be assessed to 40 per cent; or, if 30 per cent to 50 per cent, and so on—making in all cases an actual addition of 20 per cent to the rates of duty.

Inasmuch as this section gives the importer the fullest opportunity of guarding against the imposition of this additional duty, by authorizing him in all cases, notwithstanding the invoice, to raise the value to the true market rate, including all costs and charges, differing in this respect from former provisions, it is not expected that the department will be called upon to interpose to relieve any importer from the payment of this additional duty of 20 per cent.

This section further provides, "That under no circumstances shall the duty be assessed upon an amount less than the invoice value, any law of Congress to the contrary, notwithstanding."

Notwithstanding the very comprehensive language of this proviso, it is still believed that Congress could not have intended to abolish all the allowance made under previous laws for deficiencies and for damages occurring during the voyage of importation. It is represented, however, to this department, that in consequence of the misfortune occurring to importers from the happening of any damage to their goods during the voyage, appeals are made to the sympathy of public officers for relief, so far as practicable, from such loss, by very large allowances in assessing the amount of damage. Now, whatever regret may be entertained for such losses, the government does not guarantee or insure against them, and the law, in this case, as in all others, must be strictly executed; and the utmost vigilance is enjoined, so to carry into effect the law on this subject as to assess the allowance in no case above the actual damage. This damage is to be ascertained by a reference to the value of the import in the foreign market from which it came, and not according to the home valuation, the duty being according to the foreign and not the home valuation. Auction or forced sales are not to be regarded as a fair criterion of the damage. An allowance of excessive damage is not only injurious to the revenue, but is seriously detrimental to all those who import and pay the full duty on the sound articles. Monthly returns of all allowances for damage will be made to this department, together with the name of the officer by whom the allowance is made.

No appraisement is authorized by law in case of allowance for damage.

Except in case of perishable articles, no allowance of damage should be made beyond one-half the value of the article, without first submitting a full statement of the case to the department for such directions as it may be proper to give in such cases. The words of the law "during the voyage," mean after the vessel has started, and during the voyage from the last place of shipment to the United States, and before the vessel has arrived at its port of destination here. Where the article was damaged before the voyage commenced, and this damage proceeded from rust, decay, &c., or any pre-existing cause, that has subsequently increased the damage, no allowance is to be made, as it was not the policy or intent of the law to encourage the shipment of articles already damaged to the United States, but only to provide, in case of sound articles, for the unforeseen contingency of the damage received during the voyage of importation. Where the damage can be removed by any process, and the article thereby restored to a sound, or nearly a sound state, the allowance should be confined to the expense of that process.

The damage must be ascertained at the port of the United States where the vessel originally enters, and cannot be certified from any other port.

It is specially noted, that in pursuance of the provisions of the fifty-second section of the act of 2d March, 1799, no allowance for damage on the importation can be made "unless proof to ascertain such damage shall be lodged in the custom-house of the port or place where such goods, wares, or merchandise have been landed, within *ten days* after the landing of such merchandise." Where damage of the nature referred to has been sustained, the fact is presumed generally to become known at the time of discharging the cargo from the vessel, when, with reference as well to the duty chargeable as the liability of underwriters, surveys are usually called for by importers to ascertain the true cause and extent of damage by examination of the condition of the vessel and cargo. By the exercise, therefore, at the time of unlading the cargo, of proper vigilance on the part of the importer, as well as by the officer of the customs superintending the landing, it is conceived that the external appearance of the coverings of the goods, from the stains of sea water, or other cause, would in most cases indicate whether damage had occurred during the voyage. Where such indications are manifested, and the examination cannot conveniently be made on board the vessel, or on the wharf, the goods should be immediately conveyed to the public store, and there placed apart from other goods, and due examination be promptly made, and, if found necessary, appraisement, to determine the damage, should take place forthwith.

It is deemed proper to call particular attention to the provisions contained in the second section of the civil and diplomatic appropriation act, approved 10th August, 1846, requiring that in "appraising all goods at any port of the United States heretofore subjected to *spe-*

*cific* duties, but upon which ad valorem duties are imposed by the act of 30th July, 1846, entitled 'An act reducing the duty on imports and for other purposes,' reference shall be had to values and invoices of similar goods imported during the last fiscal year, under such general and uniform regulations for the prevention of fraud or under valuation as shall be prescribed by the Secretary of the Treasury." One of the objects of the law in enjoining a reference to values and invoices of similar goods, paying a specific duty, imported during the last fiscal year, is for the purpose of enabling the proper officers, in making the appraisement, to detect by such comparison, any attempt to undervalue such goods in the invoice. Consequently said officers are to exercise all reasonable and proper means to detect and counteract any such attempted imposition on the revenue; and, whenever it may be deemed necessary, will in virtue of the authority vested in them by the seventeenth section of the act of 30th August, 1842, call before them and examine, upon oath or affirmation, any owner, importer, consignee, or other person, touching any matter or thing which they may deem material in ascertaining the true market value or wholesale price of any merchandise imported; and to require the production, on oath or affirmation, of any letters, accounts, or invoices in his possession relating to the same.

In order that the comparisons referred to may be duly instituted, the invoices of all goods of the description mentioned on file in the custom-house should, for such purpose, be placed at the disposal of the appraisers, subject, however, at all times to the orders of the collector.

Further instructions under this section will be given when the practical operation of the new tariff act may furnish additional information as a guide to the department.

The oath or affirmation required by the ninth section to be administered by the collector of the port or district to the deputies of any collector, naval officer, or surveyor, and to the clerks employed by any of said officers, or by any appraiser, will be according to the following form, to wit:

"I, A. B., having been appointed (describe the office) within and for the port and district of ———, do solemnly sincerely and truly swear (or affirm) that I will diligently and faithfully perform the duties of the said office of (describe the office) and will use my best endeavors to prevent and detect frauds upon the revenue of the United States.

"I further swear (or affirm) that I will support the constitution of the United States.

"Signed, A. B.

"Sworn (or affirmed) before me this —— day of ——— A. D. 184 .

"C. D., Collector."

In the appraisement of any wines, liquors, fruits, sugars, segars, oils, preserves and such like articles in warehouse, and which have been designated in pursuance of law by the collector for appraisement, the appraisers are at liberty to exercise a sound discretion in regard to the quantity or sample of the article to be withdrawn for examination from the cask, box, or vessel in which it may be contained. And the storekeeper will be rquired to deliver to the appraisers, upon their written order, such quantities or samples of the articles designated for appraisement as they may deem necessary for the purpose aforesaid. These samples, whenever practicable, are to be returned to the public store on completion of the examination and appraisement. For the information of the appraisers, it is deemed proper to require that in all cases where appraisements are ordered on entry of any goods, the collector shall cause to be minuted in pencil at the time, on the invoice opposite the articles, the schedule by letter in the tariff of 1846, under which, in the opinion of the collcetor, the duty is to be levied.

Inasmuch as the act of 30th July, 1846, repeals all acts or parts of acts repugnant to its provisions, it is deemed proper to state that the eleventh section, together with the succeeding sections of the act of 30th August, 1842, (with the exception of the twenty-fifth and twenty-ninth sections,) is still in operation, subject, however, to the modifications contained in the act of 11th February, 1846, the new tariff act of 30th July, 1846, and the act establishing a warehouse system, &c,, approved 6th of August, 1846, as adverted to and explained in these and previous instructions, issued under the last mentioned act, bearing date the 14th of August and 30th of October last.

The following decisions on questions submitted to the department, arising under the new tariff act, are communicated for your information:—

That *gums*, to be entitled to entry at a dtuy of 10 per cent ad valorem, must be of the description generally known in commerce by the designations given in schedule E. All other gums or resinous substances, in their crude state, not so known and designated, and not otherwise specified, to be charged with a duty of 20 per cent ad valorem, under the provisions of the *third* section of the act. The substances imported under the designations of gum benzoin, or benjamin, and *benzoates*, being specifically mentioned in schedule C, are liable to a duty of 30 per cent ad valorem, and the substances termed by the importer

*gum perdu*, ascertained on due examination to be an *opium*, is chargeable with the duty of 20 per cent ad valorem, as provided in schedule E.

That, in order to the admission of *lastings, manufactures of mohair cloth, silk, twist, or other manufacture of cloth*, at a duty of 5 per cent ad valorem, under the provisions of schedule H, the collector must be satisfied, from the return of the United States' appraisers, the peculiar texture, figure, shape, or dimensions of the article, or other attending circumstances, that is, as imported, suitable for the manufacture *exclusively* of shoes, boots, bootees, or buttons, as the case may be. Where a difference of opinion may arise in regard to articles under this provision, between the collector and appraisers, the questions, with samples of the goods, may be submitted for determination to this department.

*That sheathing copper and sheathing metal*, to be entitled to free entry as provided in schedule I, must be imported in sheets not less in length than *forty-eight* inches, or in width than *fourteen* inches; nor less in weight than *fourteen*, nor more than *thirty-four* ounces per square foot.

That there being no provision in the act for the free admission of *philosophical apparatus* or anatomical preparations, whether specially imported by order, or for the use of societies or seminaries, or otherwise, articles of that description become liable, on importation, to a charge of duty according to the material of which they are composed.

That, in order to the free entry of goods, wares, and merchandise, the growth, produce, and manufacture of the United States, exported to a foreign country, and brought back to the United States under the provisions of schedule I, it is necessary that their identity be shown as prescribed in sections forty-seven and forty-eight of the act of 2d March, 1799, "to regulate the collection of duties on imports and tonnage;" and further, that such goods, wares, and merchandise, be in the *same condition* as when exported from the United States, having undergone no alteration by manufacture.

R. J. WALKER,
Secretary of the Treasury.

## WAREHOUSING SYSTEM.

TREASURY CIRCULAR TO COLLECTORS AND OTHER OFFICERS OF THE CUSTOMS.

*Treasury Department*, August 14, 1846.

The following instructions and forms are transmitted for the information and government of the officers of the customs in carrying into effect the provisions of the annexed act of Congress, approved 6th August, 1846, entitled "An act to establish a warehousing system, and to amend 'An act to provide revenue from imports, and to change and modify existing laws imposing duties on imports, and for other purposes,'" approved 30th August, 1842.

It is to be remarked, that goods, wares, or merchandise entitled to entry for warehousing, are such only as shall have been actually imported after the passage of the act "reducing the duty on imports and for other purposes," approved 30th July, 1846, vide 6th section. All goods, wares, or merchandise, imported prior to 30th July, 1846, yet on deposit in public store, the duties on which have not been paid, are subject to the payment of the duty and charges imposed by the tariff act of 30th August, 1842.

Where owners, importers, consignees, or agents, desire to warehouse their goods, due entry in writing must be made in each case, according to the form accompanying these instructions, marked A, and a bond taken with surety or sureties to the satisfaction of the collector, in double amount of the duties, according to form marked B.

In making entry of any goods, wares, or merchandise to be warehoused, all acts necessary to determine their exact quantity, quality, or original cost, and dutiable value, such as appraising, weighing, gauging, or measuring, in order to ascertain the precise amount of duty chargeable on the importation, must be performed and complied with.

Any goods, wares, or merchandise, proposed to be withdrawn from warehouse for home consumption, prior to the 2d day of December next, the day on which the new rates of duties take effect under the act of 30th July last, must be entered, and the duties with interest and other charges imposed by the act of 30th August, 1842, must be duly paid before granting permit for the delivery of any such goods, wares, or merchandise. Due regard must be paid to the restrictions imposed in the act, in the withdrawal of merchandise from warehouse, to wit: in no case "a less quantity than an entire package, bale, cask, or box," or if in bulk, then only "whole quantity of each parcel, or a quantity not less than one ton weight, unless by the special authority of the Secretary of the Treasury," can be withdrawn and delivered.

Where it is intended to withdraw any goods, wares, or merchandise, from warehouse for transportation to any other port of entry to be re-warehoused thereat, in pursuance of the second section of the act of 6th August, to establish a warehousing system, twenty-four

hours' notice at least must be given to the collector of such intention, and entry be made according to form C, and the transportation is to be made under the regulations provided in the act of 2d March, 1799, in respect to the transportation of goods, wares, and merchandise from one collection district to another, to be exported with benefit of drawback. Hence goods may be transported from any port of entry to any other port of entry in the United States, subject to the regulations prescribed by the before mentioned act.

On making a transportation entry, a bond must be given by the owner of the merchandise to be withdrawn for transportation, with sufficient surities in double the amount of duties chargeable thereon, according to form herewith marked D; which bond is to be cancelled on the production of a certificate duly authenticated, from the collector of the port to which the goods may be transported, certifying that the identical goods stated in the transportation certificate have been duly entered and re-warehoused in public store, in his collection district, and bond given for the duties.

On the withdrawal of any such goods from warehouse at any port, the storage and other charges that may have accrued thereon must be duly paid. On re-deposit or re-warehousing of any transported goods as aforesaid, due entry must be made and bond taken in the forms herewith marked E and F.

For the purpose of distinguishing goods which may have paid duty under the new tariff act, which goes into operation on the 2d day of December next, that may be withdrawn for consumption after said day, and entitled to drawback, if exported within the time prescribed by law, from other imports on which duty was paid under the tariff act of the 30th August, 1842, it becomes proper that suitable marks should be placed on all goods that may be withdrawn as aforesaid, to identify the same, so as to prevent mistake or imposition in the allowance of drawback.

Goods, wares, or merchandise entered for warehousing, must be conveyed from the vessel, or wharf, where landed, to the warehouse, under the special superintendence of an inspector of the customs, in drays, carts, or other usual modes of conveyance, to be employed on public account, by the proper officer of the customs, and the expense at the rates usually paid for such service at the port in question, is to be defrayed at the time by the person who enters said goods, wares, or merchandise, for warehousing. In cases where goods, wares, or merchandise, imported after the passage of the act of the 30th July, 1846, are intended to be exported directly from warehouse to a foreign country, entry must be made according to form herewith marked G, and bond given, according to form H, and such exportation be otherwise made in the manner now required by existing laws, relating to exportations for the benefit of drawback. In all such cases the appropriate expenses are to be paid before granting permit for exportation.

All stores used for warehousing purposes are to be rented by the collector on public account, and paid for as such, and appropriated exclusively to the storage of foreign merchandise, which is to be subject to the usual rates of storage existing at the respective ports where such stores may be hired or rented. Appropriate warehouses must be provided for goods of a perishable nature, as well as for gunpowder, fire-crackers, and explosive substances, having due respect to municipal regulations.

For warehousing of coal, woods of various kinds, &c., yards well enclosed and secured, to the satisfaction of the collector, may be hired or rented, and the usual rates for storage are to be charged on all articles deposited therein. Care must be observed by collectors in renting stores to select those of a substantial and secure character, and fire-proof where they can be obtained, and the rents stipulated for must be as reasonable as can be procured. Before entering into any lease of stores, the opinion and approval of the department must first be obtained.

Where any goods, duly warehoused, shall remain in store beyond one year, without payment of the duties and charges thereon, which in pursuance of the act are required to be appraised and sold, the department hereby prescribes that all such sales shall take place within thirty days after the expiration of the year, and due notice of such sales must be published in two or more of the public newspapers having the most extensive circulation at the port in question, daily at the principal ports for the space of ten days, and at the other ports three times a week, or as often as one or more papers may be published thereat, for the space of two weeks. But as the law provides that "all goods of a perishable nature, and all gunpowder, fire-crackers, and explosive substances deposited as aforesaid, shall be sold forthwith," they must be sold at the earliest day practicable, after due publication of notice, and time given for inspection by persons desirous of purchasing the same.

The quarterly returns required by the fourth section of the act will be made according to the form herewith marked I.

R. J. WALKER,
Secretary of the Treasury.

The forms alluded to in the preceding circular will be found at the several custom-houses in the United States.

## NEAPOLITAN TARIFF.

A CORRECT TRANSLATION OF THE NEAPOLITAN TARIFF.

| *Goods paying duty by the square yard.* | £ | s. | d. |
|---|---|---|---|
| Woollen broad-cloths of all kinds,.....per square yard | 0 | 2 | 5½ |
| Tweeds of all kinds for trowsers; also mixed with cotton,..... | 0 | 2 | 1 |
| Cashmere cloths, plaine or twilled, and all kinds of worsted stuffs of this description,..... | 0 | 1 | 8 |
| Circassians, and all kinds of worsted stuffs of this description, whether twilled or plain, and with or without cotton or linen mixtures,..... | 0 | 1 | 8 |
| Gambroons, lastings, says, furniture drapery, or moreens, white flannels and baizes, and all kinds of worsted stuffs of this description, either varnished, painted, or japanned; also plaids, plushes, &c., &c.,..... | 0 | 0 | 5 |
| Woollen carpets, mixed or not with linen or cotton,..... | 0 | 0 | 7½ |
| Woollen common, printed, or imitation carpets; also quilts, blankets, &c.,.. | 0 | 0 | 7½ |
| Pilot cloths of all kinds,..... | 0 | 0 | 9½ |
| Cotton counterpanes, wadded or single, plain or embroidered,..... | 0 | 0 | 7½ |
| Cotton quiltings, Scotch cambrics, plain, striped, dyed, printed,..... | 0 | 0 | 4 |
| Cotton quiltings, mixed with wool, or linen, or any other material, and with not more than three to four threads of silk, or with a small flower of silk, gold, or silver,..... | 0 | 0 | 9 |
| Cotton calicoes, muslins, &c., grey, bleached, or printed; plain or striped handkerchiefs, &c.,..... | 0 | 0 | 2½ |
| Cotton muslins, embroirdered; also colored handkerchiefs, (not silk,)..... | 0 | 0 | 5 |
| Cotton muslins, embroidered with gold, silver, silk, or wool; also handkerchiefs,..... | 0 | 0 | 10 |
| Cotton velveteens and moleskins, &c., plain, ribbed, printed, or dyed,..... | 0 | 0 | 8½ |
| Linen, such as French cambrics, Scotch and Irish linens, and also any other kind of such goods not enumerated in the tariff, grey, bleached, dyed, or printed; also mixed with wool or cotton, japanned, dyed, or printed,... | 0 | 0 | 5 |
| Linen drills, damasks, napkins, diapers, grey or bleached, dyed or printed, plain or fancies, ribbed or striped,..... | 0 | 0 | 5½ |
| Linens, mixed with cotton, wool, or any other material, and with not more than three to four threads of silk, or with a small flower of silk, gold, or silver,..... | 0 | 0 | 9 |
| *Goods paying duty by weight.* | | | |
| Manufacturers of cotton, wool, or linen, or mixed, such as purses, braces, fringes, gloves, night-caps, hosiery &c., &c., .....per lb. | 0 | 1 | 10½ |
| Manufactures of all kinds of silk, mixed or not with cotton, wool, linen, or any other material,..... | 0 | 10 | 5½ |
| Worsted shawls, plain or striped, with fringes of wool, cotton, or linen, (exclusive of silk, gold, or silver,)..... | 0 | 8 | 9½ |
| Woollen yarn dyed,.....per cwt. | 4 | 15 | 11 |
| " " not dyed,..... | 3 | 14 | 8 |
| Linen, hemp, or cotton yarns, dyed,..... | 2 | 2 | 8 |
| " " " not dyed,..... | 1 | 16 | 8 |
| Silk pocket handkerchiefs, printed or plain, not exceeding thirty-six inches in width,.....per lb. | 0 | 5 | 8 |
| Silk and cotton, or silk and linen do. do..... | 0 | 5 | 2 |
| Silk manufactures mixed with cotton, wool, linen, or any other material,... | 0 | 5 | 2 |
| " " varnished or japanned,..... | 0 | 8 | 9½ |
| Buttons, covered with silk, wool, linen, cotton, or with any other material not enumerated in the tariff,..... | 0 | 1 | 1½ |
| Flax or hemp,.....pe. cwt. | 0 | 9 | 7 |
| Flax or hemp, carded or prepared,..... | 0 | 12 | 9 |
| Beer or porter, including barrels, gross weight,..... | 0 | 16 | 0 |
| Ink and blacking, liquid or otherwise prepared, gross weight,..... | 1 | 1 | 4 |
| Wires of all sorts,..... | 0 | 4 | 9 |
| Machinery for arts and sciences,..... | 0 | 1 | 0 |
| Springs for carriages,..... | 1 | 12 | 0 |
| Chrome yellow,..... | 4 | 5 | 8 |
| Oil paints of all sorts, also in cakes,..... | 3 | 4 | 0 |
| Muriate of manganese, gross weight,..... | 0 | 8 | 6 |

| | £ | s. | d. |
|---|---|---|---|
| Sugar lead, brown, grey, or white, gross weight, | 0 | 17 | 0 |
| Sulphate potash, gross weight, | 0 | 10 | 8 |
| Alum, gross weight, | 0 | 12 | 9½ |
| Bichrome, gross weight, | 1 | 12 | 0 |

*Goods paying duty by the number.*

| | | | |
|---|---|---|---|
| Shirts of linen, hemp, French cambrics, cut or ready made with or without embroidery, | 0 | 1 | 6 |
| Shirts of cotton, bleached or colored | 0 | 0 | 8 |
| Nankeens, yards, 4½ to 5¾ long, and 18 inches wide, per piece | 0 | 0 | 10 |
| Nankeens, yards, 5¾ to 7½ long, and 17½ inches wide, | 0 | 1 | 6 |
| Silk umbrellas, of all sizes, each | 0 | 3 | 4 |
| Cotton or linen do. of all sizes, | 0 | 1 | 8 |

N. B.—The whole of the above-mentioned goods are subject to the following discount or allowance on the duty, viz:—

20 per cent if the goods are for Messina and its districts.
15 " " " the districts of Messina, Catania, and Syracuse.
10 " " " the districts of Palermo, and
5 " " " the city of Palermo.

The duties on the former, or old tariff, varied from 50 to 175 per cent; and on some goods, to 200 per cent.

ALLOWANCES ON TARES.

11 per cent, if the duty is levied per cwt.
21 " on liquids, and
1 " on goods whose duty is levied per lb.

*Naples, 9th March*, 1846.

## BRITISH REGULATIONS FOR STEAM VESSELS.

The act of last session on steam navigation was passed to regulate the construction of sea-going vessels, and for preventing the occurrence of accidents in steam navigation, and for requiring steam vessels to carry boats. It contains provisions applicable to all steam vessels. From the 1st of January, no vessel, the tonnage of which shall be one hundred tons or upwards, shall proceed to any port unless it is provided with boats; and no vessel carrying more than ten passengers, shall proceed to sea on any voyage unless in addition to the boats, it shall also be provided with a boat fitted up as a life-boat, with all requisites for its use, together with two life-buoys, nor without a hose to extinguish fire. Twice a year, (April and October,) certificates of the good condition of steam vessels are to be sent to the Board of Trade. Accidents and damages to steamers are to be sent to the board, and inspectors may be appointed to investigate the matters. Proceedings and indictments under this act to be sanctioned by the Board of Trade.

## FOREIGN SEAMEN IN BRITISH SHIPS.

In consequence of some misapprehension relating to the employment of foreign seamen, not registered, on board British vessels, the following notice has been issued from the home office, for the information of the shipping interest:—"In the matter of foreign merchants, the Navigation Act (3 and 4 Wm. IV. c. 54,) permits the employment of foreigners on board British vessels engaged in the foreign trade, but does not sanction their being employed in the coasting trade; and it is therein enacted, that three-fourths of the crew of a British ship must be British subjects in foreign voyages; the remaining fourth may be foreigners. The issue of register tickets under the 20th section of the Merchant Seamen's Act, (7 and 8 Vict. c. 112,) is restricted solely to subjects of her Majesty. Foreigners require no register tickets, but may be employed in the same manner as if the said act (the Merchant Seamen's) had never been passed. Certificates of naturalisation (under 7 and 8 Vict. c. 60,) may be obtained by foreign merchant seamen, providing they come within the regulation in other respects."

# NAUTICAL INTELLIGENCE.

## THE USE OF CHRONOMETERS.

BY CAPT. JOHN S. SLEEPER, EDITOR OF THE "MERCANTILE JOURNAL."

Few instruments have ever been invented, that are more ingenious or useful than the chronometer, and the improvements introduced into its manufacture within the last quarter of a century, are such as to make it an almost perfect *measure of time*. The difficulties caused by the expansion and contraction of metals in different degrees of temperature, after a long series of experiments, have been almost entirely overcome—and by means of this little instrument, the longitude of a place may be determined with the greatest ease and almost perfect accuracy. The advantages of this instrument in navigation are of course immense, and begin to be generally appreciated by the mercantile community. It must be evident that the safety of a ship, and the time occupied in a passage, must in a very considerable degree depend on the knowledge which the master may have of the position of his ship from time to time. This, it is well known, cannot be determined with a sufficient degree of accuracy by *dead reckoning*—and before chronometers were introduced, no other means were ordinarily used at sea for this purpose than *lunar observations*—the process of working which in those days was exceedingly tedious and laborious, and required much care to avoid error. The process, however, which is now used, is much more simple, and requires fewer figures than the former mode.

But the great advantage which the chronometer possesses over the sextant, in determining the longitude at sea, is, that it may be used at all times when the sky is so unclouded that an altitude of the sun in the morning or the afternoon may be observed. It is not unfrequently the case that no opportunity will occur during a long voyage to Europe, of measuring the distance between the moon and the sun, or a star—while an altitude of the sun in the forenoon or afternoon, may be obtained on almost every day during the passage. Hence a chronometer on board our European traders, is not only an article of great convenience, but should be regarded as an instrument which cannot be dispensed with.

Some of our West India traders also find it of great value. With a chronometer on board, a vessel with a perishable cargo can be navigated directly towards the port to which it is bound, instead of proceeding so far to the eastward that it will require several days to run down the latitude, as is too often the case. When it is considered that a few days' difference in a passage to the West Indies will sometimes make a difference of thousands of dollars in the sale of a cargo, the great advantages of having a chronometer on board will be at once perceived. We were once informed, by an intelligent ship-master, that he was bound to a port, St. Pierre, in one of the Windward Islands, and in the latitude of 28° was steering due south, having already arrived to the eastward of his destined port. At this time he fell in with a lumber-loaded vessel from some port in Maine, bound to the same place, which was steering S. E. by E., the captain of which was exceedingly anxious to get *far enough to windward*. Our friend reached Martinico in safety, after a very short passage—discharged his cargo, received another on board, and was in the act of leaving the harbor, when the vessel which he had previously spoken arrived!

We conceive chronometers to be of much greater service in voyages to Europe and the West Indies, than in voyages to the East Indies,—although in the latter case it is well known that they are exceedingly useful. In East India voyages, during a very considerable portion of the passage, the sky is generally so unclouded that a sextant may be used, and the longitude ascertained with great certainty by means of *lunar observations*. When a sextant is not on board, or is out of order, a good quadrant will supply its place. In the year 1825, while on a voyage from this port to Batavia, we ascertained to our great regret,

that our sextant, a new one, and high-priced, was a worthless instrument. There was no chronometer on board, and we at first anticipated some difficulty in ascertaining the longitude, but we soon found that by measuring distances of objects on each side of the moon, with a quadrant, and by taking the mean of the observations, in this way the longitude could be determined, as often as was necessary, with almost perfect accuracy:—this was proved in running for the Islands of Cape de Verd, the Islands of Trinidad, St. Paul, and Java Head—and so far from occupying unusual time in performing the voyage, as we apprehended might be the case, when we first discovered the worthlessness of the sextant, the whole voyage to Batavia and back to Boston, with full cargoes both ways, was performed in a space of time unprecedentedly short—being only *seven months and eighteen days.*

The greatest objection to the use of a chronometer is, that the instrument being of delicate construction, is easily affected by injuries—and will sometimes lose its rate, and may thus deceive the navigator, and lead him into danger. This should be guarded against with the utmost care; and where a vessel is furnished with only *one* chronometer, *it should never be implicitly relied on.* Every opportunity should be seized to test its correctness—particularly by lunar observations.

In European voyages, where, as we have before stated, an opportunity for taking lunar observations seldom occurs, *two* chronometers, or a chronometer and *a well-regulated watch*, will be found of incalculable value. So long as there is no essential difference in the Greenwich time indicated by these instruments, the navigator may run boldly, *relying, with the aid of a good look-out*, upon the correctness of his longitude—but should a variation occur, he will immediately perceive it, be upon his guard, and enabled to escape dangers which might otherwise befall him.

## NAUTICAL INVENTION FOR STEERING SHIPS.

The North American, published at Philadelphia, furnishes the following account of an improvement in the machinery for steering vessels, of great importance to navigators:

"An extremely neat model, made by E. W. Bushnell, machinist, No. 31 Dock street, Philadelphia, recently attracted much attention, from the nautical men, in the rotunda of the Exchange, where it was placed for examination. It is an invention of R. C. Holmes, agent for the underwriters, at Cape May, and is pronounced by the first seamen, the greatest improvement ever accomplished in the machinery for steering vessels. The great difficulties under which the steering gear of ships labor, are completely obviated by it. The making of slack, the vibration of the tiller, and the change in the tiller-rope, are entirely prevented. By the fixed position of the machinery, the ropes always lead fair through the blocks and wind regularly, thus avoiding all chafing of one part against the face of the other—all danger of accident to the steersman, in strong currents, from the slacking of the rope, is rendered impossible. So taut, and yet so simple is the machinery, that instead of the constant watching of the wheel heretofore required, and the frequently harrassing labor of the helmsman, a child almost could manage it in the heaviest sea; and in a gale of wind a vessel would almost lay-to itself. The principle is two barrels or drums instead of one. As fast as the rope accumulates upon the upper one, it is carried off by the lower one. The invention is a new feature in mechanics, nothing like it having been discovered in the books at the Patent Office."

## LIGHT-HOUSES ON THE COAST OF SWEDEN.

The Norwegian Marine Department has represented the necessity of erecting two new light-houses on the Swedish coast. Our marine department has represented that as these light-houses will be chiefly advantageous to the navigator of Norway, that kingdom should bear half the expense, (twenty-eight or thirty thousand dollars,) for erecting the light-houses. But the king, considering that it is usual for every country to bear the expense of creating and maintaining light-houses on its own coast, has decided that the whole expense shall be borne by Sweden. His Majesty has allotted the sum of ninety-eight thousand dollars for a marine expedition, for which the Eugenia frigate and the Nordenskold brig are ordered to be got ready for ten months.

## BEACONS ON THE NIDINGEN ROCKS, CATTEGAT.

The Swedish Royal Marine Department (Stockholm, Oct. 9, 1846,) gives notice that the rebuilding and alterations of the Seacoal Beacons, on the "Nidingen" rocks, in Cattegat, situated in lat. 57. 19. North, and lon. 30. 06. East of the Feue, or 11. 56. East of Greenwich, has now been completed, and that the two stationary lentille lights, (a feu fixe,) which have been put up in the same beacon tower, were lighted for the first time on the evening of the 1st., from which time the provisional lights were withdrawn. The lighting hereafter will be continued during such times of the year as prescribed in section 42 of the royal ordinance, respecting pilots and light-houses, of the 16th May, 1827. The light in the new beacon is 68 feet above the level of the sea, and ought to be seen in clear nights from ships' decks, at a distance of 3¼ geographical miles and over, around the whole horizon. The bearings of the beacon, which have undergone no change, are E. N. E. and W. S. W. by compass, distance about 100 feet from each other.

## BEACONS AT HELIGOLAND.

Trinity House. London, 11th Nov., 1846.—The beacons which have long existed upon Sandy Island, at Heligoland, having fallen into decay, and the Landesvorstechaft of that place having solicited this Board to cause them to be reinstated, and thereafter to uphold them, and the beacon upon the mainland of the Island, and this Corporation having consented so to do, and to regard the said beacons as appendages to their light-house upon that Island, notice is hereby given, that, in accordance therewith, three new beacons, each colored black, and surmounted by a triangle, have been erected upon Sandy Island aforesaid, and mariners are to observe—that the centre or highest beacon in line with that on the West side, from which it is distant 340 feet, and bears S. W. ¼ S. strikes the Steen Rock; that the centre or highest beacon in line with that on the North side, from which it is distant 420 feet, and bears N. W. ¼ N. leads into the North Channel, and being so kept, until the Light-house and Church are in line and bearing S. S. W. ¼ W., will bring vessels up to the Mooring Buoys; and that the beacon on Heligoland in line with the Old Tower, bearing—¼ E., strikes the Steen Rock.

## REVOLVING LIGHT ON VAIRO ISLAND.

The Danish government has given notice, that a Revolving Light has been established on Vairo Island, in lat. 55. 2. 15. N., and lon. 11. 22. 15. E. The light is fifty-one feet above the level of the sea, and visible every quarter of a minute, at the distance of about three leagues. At the same time a small fixed light was also established on Point Helholm, the South point of the Island Agerso, about ten miles N. by W. (mag.) of Vairo, at an elevation of about twenty-five feet above the level of the sea. By day, a ball, painted red and white, to be seen over the lantern; this ball, seen in one with the Windmill, on Helholm Point, is the leading mark for entering Omo Sound from the Northward.

## BUOYS IN THE GULF OF SMYRNA.

Of the six buoys laid down about three years ago in the Gulf of Smyrna, off the Castle, by Captain Graves, it appears only Nos. 1 and 3 now remain, as shown from a report of Captain Curry, of her Majesty's sloop Harlequin, transmitted to Lloyd's, through their agent at Smyrna. Captain Curry cautions masters of vessels standing too close into Pelicata Point.

## NEW LIGHT ON CAPE ST. VINCENT.

The new Light on Cape St. Vincent was lighted on the 29th ult. It is a rotatory Light of the first class, showing a brilliant flame with regular eclipses every two minutes.

## WESTERN AUSTRALIA.

The ports of Western Australia are now open to ships of all nations, free from all pilotage and harbor dues, and pilots are appointed and paid by government to take ships in and out.

# JOURNAL OF MINING AND MANUFACTURES.

## MANUFACTURING INDUSTRY OF NEW YORK.

NUMBER II.

CHELSEA—ITS PROGRESS IN POPULATION AND INDUSTRIAL PURSUITS.—The progress of population and industrial pursuits in the city of New York appears to have a natural tendency along the borders of the Hudson. The suburb of Chelsea, in which the indications of commercial and manufacturing prosperity, a short time since, were "few and far between," has now become essentially incorporated within the city limits. This result has been attributable to various causes. The location of the Episcopal seminary gave it the first impulse, and had a tendency to concentrate in its neighborhood a respectable and enterprising population. Other causes have since contributed to a like result; among which are the extension of inland traffic along the shores of the Hudson; the establishment of numerous manufactories, and the facilities afforded for intercommunication by the several stage routes. Having occasion to visit this section of the city, a short time since, we were astonished to perceive the large amount of capital invested in manufactures, and curiosity led us to make the following enumeration of the most prominent establishments, several of which we have attempted to describe with some degree of minuteness:—1 Cotton Factory, 1 Steam Soap and Candle Factory, 2 Steam Planing Mills, 2 Steam Saw Mills, 3 Steam Plaster Mills, 1 Adamant Pearl Light Factory, 2 Potteries, 1 Wire Factory, 1 Fulling Mill.

CHELSEA PEARL LIGHT WORKS.—These works were erected by Messrs. Morse & Winslow, in 1843, for the manufacture of a candle called the "Adamant Pearl Lights." They are made of lard and tallow by a nice and somewhat complicated process, and bear a strong resemblance to wax. They receive a high polish, or are grained so as to have the appearance of the best patent Sperm. They are of a very fine white, and so hard that they seldom melt at a less heat than one hundred and fifty-eight degrees of Fahrenheit, which admirably adapts them to the warmest climates. The Adamant Light emits a larger volume of light than any other; combining, with this quality, great beauty of finish and appearance. They are likewise economical, and can be afforded at a less price than Sperm. This article was first produced in France, some ten or fifteen years since, by M. Berzelius, the celebrated chemist, and are now extensively manufactured throughout Europe. When in full operation, the establishment of Messrs. Morse & Winslow employs a capital of some $30,000. It consumes upwards of 500,000 pounds of raw material, and produces from 7,000 to 8,000 boxes per annum. Number of hands 30, whose wages amount to $8,000 annually. Hours of labor, 10. Agents, Messrs. Hussey & Murray, 62 South street; Mark Spencer, 88 Front street; Henry Butler, 84 Front street, New York, and Theodore T. Johnson, 61 North Wharves, Philadelphia. A silver medal was awarded for the above article at the late fair of the American Institute.

KNOX'S COTTON FACTORY.—This extensive establishment was erected in 1828, by Mr. Alexander Knox, the present proprietor, at the corner of Jane and Washington streets, for the manufacture of Elston Ginghams. Active capital invested, $75,000. It gives employment to 100 hands; 2,060 spindles; 70 looms; 2 fly frames; 1 stubbing frame; 2 drawing frames, and 8 cards; consumes 100 bales of cotton per annum; and manufactures 270,000 yards per annum, valued at $50,000. By means of an improved spindle, they are enabled to spin "hundreds," or 100 skeins to the pound. Hours of labor, 12.

CHELSEA POTTERY is owned by Mr. Washington Smith, who erected it in 1833, for the manufacture of stoneware, earthenware, and portable furnaces. Capital invested,

$25,000. Number of hands, 20. Hours of labor 10. Average wages, $7,50 per week. Value manufactured, $25,000.

Crocker's Wire Works and Rolling Mills were erected in 1844, for the manufacture of iron and copper wire. The establishment has sixteen large, and 120 small wire blocks, rolls, &c. Number of hands, 48. Hours of labor, 10. We understand there is only one other establishment in the United States which employs the same machinery.

Columbian Distillery.—The Columbian Distillery is the most extensive in the State, and owned by William M. Johnson & Sons. It is located between 9th and 10th avenues, and extends from 15th and 16th street, covering 100 lots, 25 by 100 feet. Active capital invested, $100,000. Number of hands, 50. Manufactures, annualy, 1,800,000 gallons of rye whiskey, at the average value of 25 cents per gallon.

Archimedes Iron Works.—These works comprise two establishments, located respectively at 96 North Moore street, and foot of 33d street, North River, the former occupying six lots of ground, and the latter eighteen. Owners, Messrs. H. R. Dunham & Co., who commenced operations in 1833. Capital invested, $125,000. Number of hands, 220. Average wages, $75,000 per annum. Material consumed, $110,000 per year. Amount manufactured, $235,000. Articles manufactured—engines, sugar mills, improved dredging machines, and iron vessels of various descriptions.

The Allaire Works were erected in 1816, and occupy an area of 38 lots on Cherry street, near its junction with Grand. This establishment, by act of incorporation, is under the superintendence of three managers. President, J. P Allaire, Esq. Capital $300 000 Number of hands, 250. Average wages, $1,25 per day. Hours of labor, 10. Material consumed annually—bar iron, $15,000; sheet-iron, &c., $14,000; lumber, 4,500; bituminous coal, $2,500; copper, $6,500; anthracite coal, $4,500; pine wood, $500; pig iron, $19,000; charcoal, $600; boiler iron, $27,000. Manufacture—sugar mills and steam engines, to the annual value of $200,000.

New York Iron Foundry, Printing Press and Saw Manufactory.—This establishment is owned by Messrs. Noah, Joseph H. & Wade B. Worrall, and erected in 1816, by Henry Worrall, the father of the present proprietors. Capital, $80,000. Number of hands, 90. Hours of labor, 10. Average wages per year, $27,500. Consumes $52,000 worth of raw material annually, and manufactures machinery, printing presses, and various descriptions of cast steel saws, to the yearly amount of $90,000.

Hoge & Delamater's Iron Foundry commenced operations in 1835, for the manufacture of steam engines boilers and machinery. Capital invested, $80,000. Number of hands, 150. Average wages per day, $1,38. Hours of labor, 10. Material consumed per annum, $100,000. Value manufactured, $250,000.

Columbian Foundry and Burr Mill Stone Manufactory.—This establishment was formerly known as McQueen's, and is the oldest of the kind in the United States. Capital invested, $45,000. Material consumed per year, $35,000. Value manufactured annually, $60,000. Number of hands, 60. Average wages, $1.25 per day.

The Works of the New York and Saugerties White Lead Company are situated in the village of Saugerties, on the west bank of the Esopus Creek, about a quarter of a mile above its mouth or entrance into the Hudson River. The main building is of stone, 200 feet by 50, four stories high, in addition to which there is a stone storehouse, and several frame buildings connected with the works. The factory was erected in 1829, is at present owned and carried on by an incorporated company, the capital of which is $90,000. They manufacture 1,500 tons of white lead annually, a part of which is ground, consuming in the latter process, 20,000 to 25,000 gallons of linseed oil. The water power by which the machinery is driven is supplied by the Esopus Creek, and has never been known to fail, even in seasons of the greatest drought. They employ about 60 hands, exclusive

of those employed in the making of kegs and casks, the yearly cost of which, for material and labor, is from $8,000 to $10,000. Labor paid $1 per day. The white lead manufactured by this company stands high in the market. James McCullough, 159 Front street, New York, is president of the company, and agent for the sale of the white lead.

## THE IRON MOUNTAINS OF MISSOURI.

IRON MOUNTAIN, MISSOURI, *November*, 17, 1846.

To FREEMAN HUNT, ESQ., *Editor of the Merchants' Magazine:*—

DEAR SIR,—Having promised you a few lines from some point of my journey, I think the present gives me sufficient inducements to send you this hasty sketch, for I can assure you that any man, without being a great enthusiast, like myself, and without having so great a predilection for studying nature's works and admiring them, cannot help being struck with surprise and awe at her stupendous deposit of one solid mineral,—the iron,—which, for several miles, may be seen on the surface, and which, in one mountain, has been penetrated two hundred and fifty feet, and on the other ten feet, but to a much larger extent. Really, it is my opinion, that the Iron Mountain proper, and the Pilot Knob have enough material in their bowels to supply the world for a century. It is here that a furnace has been erected since last year. I then saw but one house, and now there are more than thirty already built, and the people in the neighborhood are flocking in for employment. The Iron Mountain is about six miles distant from the Pilot Knob, which is twice as high as the Iron Mountain proper, and I cannot help coming to the conclusion that both these mountains, although at present separated by a large valley or gulley, were at a remote period but one mountain, and that great volcanic actions have revolutionized this particular part of the country. On the side of the hill, or where at present the furnace stands, I observed, last year, at the depth of fifty feet, a bed of decomposed granite; but on travelling towards Mine la Motte, I perceived many small and large boulders, or erratic blocks of granite, some as large as twenty-five feet, scattered all over the wild forests, and some of them forming small mounds, with the moss and grass grown over them, and the iron itself presents to the eye of the observer irregular and angular pieces, very smooth on the surface, as if it were once passed through the fire, and having an external fused appearance, and burnished black on the outside, but of a steel-grey color on the inside,—the lumps varying from two inches to four feet, but not above, scattered promiscuously all over the surface of the mountain. On examining to the depth of ten feet, a little distance from the furnace, and more than half a mile from the summit, is found the same iron, of a smaller size, lying quite loose in the gravel. There cannot be found, in my view, a better example than this spot of the truth of the theory of Poulet Scrope, lately reproduced in the "Vestiges of the Natural History of Creation," (p. 34,) that the former shape of our globe being oval, and formed of granite, and that by the centrifugal fire the interior fused mass protruded and formed the volcanoes, and threw out with force most metals along with the granite, and were the first volcanic actions produced. I shall bring home with me some specimens of the iron ore and the granite, as I found them, lying separately in the loose grounds, and you will no doubt agree with me on this point.

Now, this Iron Mountain and Pilot Knob have enough material, as stated before, and furnish a better product than I have seen anywhere else. I perceived near the furnace, a pile of magnesian lime-stone, and a great quantity of round baskets, filled with charcoal, which are required with the ore in the furnace, for producing the fusion into pigs; and I saw two kinds of metal lying before the furnace,—one kind is a solid white mass, equal to white metal, which is intended for forging purposes; and the other, a black heavy mass, for the use of foundries and machinery. The first is produced by an overcharge of mineral in the furnace, making it more compact; the latter by an increased heat. The material in

the Pilot Knob has never been used for casting purposes, but, some few years ago, edge-tools were manufactured and forged from the crude ore. The quantity of pig iron produced at present is about ten tons per day, performed by four discharges in twenty-four hours, but the present furnace having given way, it must be replaced by a more substantial and larger one, which is estimated to produce twenty tons per day. The distance from the Iron Mountain to the landing on the Mississippi River, is 40 miles, and it costs but one-quarter of a cent per pound for transportation. I met twelve wagons, loaded with pig metal, each having four thousand pounds, and performing the trip in four days, at an expense of ten dollars each.

The Iron Mountain proper is about a mile and a half long, and about one mile broad—or rather more than a section of land; while the Pilot Knob is twice as high as the Iron Mountain, but has not so much surface. Here you travel upon nothing but iron lumps as far as the eye can reach; there you see the whole top of the mountain forming one sheet of iron. Here they have penetrated but ten feet into the ground—the surface iron being all too large lumps—while, at the Pilot Knob, they have penetrated, on the summit and at the base, at least two hundred and fifty feet. The iron ore found here is of the richest kind, it yields at least 60 per cent of pig metal, and I saw but very few slugs lying about the furnace. At St. Louis, they prefer the pig iron from the Iron Mountain, to that of Tennessee. The company intend making, in a short time, 20 tons per day, or 7,500 tons per annum. It would pay a profit to export the ore to other States for smelting, where fuel is more abundant. The supply of the ore in this region is inexhaustible.

The Iron Mountain is one mile broad, four hundred and forty-four feet high, and three miles long. The lumps of iron increase in size ascending towards the summit. The Pilot Knob is the highest peak of mountains in the whole neighborhood, and cannot be less than fifteen hundred feet high; it is said to be a mile from the base to the summit, but this appears highly incredible. The iron ore is a micaceous oxide of iron, but not a magnetic oxide, as some former writers have called it.

From a careful calculation which I have made of the cubic feet of ore imbedded in the mountains, the quantity of pig iron may be put down at six hundred millions of tons. I have examined all the lead districts, and several copper mines; have seen cobalt, nickle, zinc, calamine, manganese, barytes, and a great many valuable minerals which this State produces, which I may refer to in a future communication.

I am, in haste, your friend, LEWIS FEUCHTWANGER.

## AUSTRALIAN COPPER ORE.

A vessel arrived in London, from Port Adelaide and the Cape of Good Hope, respectively, brought, in addition to a very extensive cargo, the large quantity of 600 tons weight of copper ore from the Australian port first mentioned, the production of the place. It is stated that there is a conical hill of copper near Mount Arden, in South Australia, which is reported to be literally a mass of copper that it would take ages to remove.

## EXTRACTING SILVER FROM LEAD.

The mines of Wanlockhead, in Scotland, the property of his Grace, the Duke of Buccleuch, are now wrought with spirit and enterprise by the noble proprietor. At the smelt mills, refining apparatus for separating the silver from the lead ore has been erected. It was set in motion on October 12th, 1846, for the first time, when a plate of silver, 104 pounds weight, was extracted from the lead. The yield averages from 7 to 13 ounces of silver to one ton of lead, and the ore that yields the latter quantity may be considered among the richest specimens in Scotland.

## ROCHESTER FLOUR MANUFACTURE AND TRADE.

The Rochester Daily Democrat furnishes the following statement of the quantity of flour shipped East from the city of Rochester, on the Erie Canal, for three seasons, as follows:—

| | 1844. | 1845. | 1846. |
|---|---|---|---|
| April | 25,044 | 41,925 | 26,071 |
| May | 36,520 | 43,519 | 57,404 |
| June | 27,741 | 34,069 | 42,506 |
| July | 31,870 | 41,159 | 37,869 |
| August | 56,238 | 52,218 | 51,427 |
| September | 66,506 | 78,751 | 90,656 |
| October | 80,658 | 129,199 | 104,839 |
| November | 75,801 | 102,478 | 129,450 |
| Total.....bbls. | 400,378 | 518,318 | 510,232 |

The increase of the shipments in 1846 over 1845, is 21,814 barrels; over 1844, 139,854 barrels. The quantity sent forward by railroad before the opening of navigation, and the amount that will go forward between the 1st of December and the 1st of January, together with the quantity consumed by 27, 000 inhabitants, will show an aggregate of over 600,000 barrels manufactured in Rochester during the year.

Eighteen flouring mills, containing 92 run of stone, were employed in the season of 1846. This force will be increased in 1847 by the addition of two new mills, and eight run of stone. Horace P. Smith has nearly completed a new mill, 65 feet by 45, and four stories high, on the site of the old Smith mills—which were destroyed by fire two or three years ago—which will be ready for operation early in the Spring of 1847. Mr. Thorn has commenced the erection of a new flourishing-mill on the river, in rear of Barton & Belden's edge-tool factory, which will also be ready for business in the Spring. The amount of capital invested, and used directly in the flour business, cannot be less than $3,500,000. The State derives an annual revenue from this branch of manufactures of over $135,000.

The following is a list of the mills, with the names of their occupants:—

| Names. | Occupants. | Run of stone. | Situation. |
|---|---|---|---|
| Aqueduct mills. | E. S Beach. | 10 | Aqueduct street. |
| Red do. | James Chappell. | 3 | " |
| New York do. | James Chappell. | 6 | Mill street. |
| City do. | N. Ayrault. | 5 | " |
| Ætna do. | M. B. Seward. | 4 | Water street. |
| Crescent do. | G. W. Burbank. | 6 | " |
| Ely's do. | E. D. Ely. | 9 | St. Paul street. |
| White do. | M. B. Seward. | 3 | Water street. |
| Farmers' Custom do. | Thos. Parsons. | 3 | Aqueduct street. |
| Field's do. | Jos. Field. | 5 | Mill street. |
| Shawmut do. | Jos. Putnam. | 5 | " |
| Whitney do. | John Williams. | 5 | " |
| Eagle do. | Sheldon & Stone. | 3 | " |
| Frankfort Custom do. | I. F. Mack. | 3 | " |
| Hart's do. | W. F. Holmes. | 10 | " |
| Clinton do. | J. Bradfield. | 4 | " |
| Genesee Falls do. | T. Parsons. | 3 | Genesee Falls. |
| Phœnix do. | Wm. James. | 4 | Mill street. |

## LEAD MINES AND TRADE OF THE WEST.

Dr. Owen, who was appointed by the government to make an examination of the mineral lands of Iowa and Wisconsin, states, as the result of his inquiries, that the region produces at this moment nearly as much lead as the whole of Europe, with the exception of Great Britain, and that it has indisputable capacities of producing as much lead as all Europe, Great Britain included.

The arrivals at New Orleans, annually, have been as follows, viz:—

| | | | |
|---|---|---|---|
| 1828.....pigs | 183,712 | 1838.....pigs | 251,733 |
| 1829..... | 146,203 | 1839..... | 295,634 |
| 1830..... | 254,805 | 1840..... | 317,596 |
| 1831..... | 151,251 | 1841..... | 434,467 |
| 1832..... | 122,933 | 1842..... | 473,556 |
| 1833..... | 160,662 | 1843..... | 571,946 |
| 1834..... | 203,109 | 1844..... | 639,269 |
| 1835..... | 251,773 | 1845..... | 732,125 |
| 1836..... | 295,644 | 1846..... | 785,495 |
| 1837..... | 244,090 | | |

The lowest price obtained for lead sold in New York, within ten years, was 2¼ cents, twelve months credit, and the highest 8 cents, sixty days—the former in 1830, and the latter in 1836.

## MANUFACTURE OF RAILROAD IRON IN THE UNITED STATES.

It is stated in the Miners' Journal, that during the year 1844, the first bar of railroad iron was manufactured in the United States. We also learn, from the same source, that the following establishments are in operation, or almost completed:—

| Names. | Location. | Tons per annum. |
|---|---|---|
| Montour Iron Company..... | Danville, Pa..... | 9.000 |
| Wyoming..... | Wilkesbarre, Pa..... | 9,000 |
| Trenton..... | Trenton..... | 9,000 |
| Mount Savage..... | Maryland..... | 9,000 |
| Providence..... | Providence, R. I..... | 9,000 |
| Hunt..... | Philadelphia, Pa..... | 6,000 |
| Great Western..... | Pittsburgh, Pa..... | 6,000 |
| Seibert and Wainwright..... | Philadelphia, Pa..... | 6,000 |
| Grey..... | Boston, Mass..... | 9,000 |
| Phœnixville..... | Phœnixville, Pa..... | 9,000 |
| Tremont..... | Connecticut..... | 6,000 |
| Fall River..... | Connecticut..... | 9,000 |
| Moore & Hoven..... | Norristown, Pa..... | 6,000 |
| Ellicott's..... | Baltimore, Md..... | 6,000 |
| Yarmouth..... | Yarmouth, Mass..... | 5,000 |
| Lackawanna..... | Luzerne county..... | 6,000 |
| Total tons..... | | 119,000 |

The Miners' Journal adds:—

"Of the above-mentioned works, all are in operation, except four or five, which are now in process of construction, and nearly finished. It will be seen that they are of sufficient capacity to make 119,000 tons of railroad iron per annum, equal to 2,288 tons per week, or 382 tons per day. For a mile of railroad, with a heavy track, about ninety tons of iron are required. It will be seen, therefore, that iron enough can be manufactured in the United States to lay *four miles per day, or twelve hundred miles per year.* When we reflect that only two years have elapsed since the first ton of railroad iron was made in this country, it seems almost incredible that so much has been accomplished in so short a time.

"In producing the amount of railroad iron mentioned above, 300,000 tons of iron ore are used. It is impossible to state accurately the number of hands employed in manufacturing the iron from the time the ore is dug, until the rails are finished at the rolling mill.

"Many thousands, however, are engaged in this department, and its prosperity is intimately connected with that of a large portion of the laboring classes in the State, and while it is estimated that five tons of coal are used in the manufacture of every ton of railroad iron, giving an aggregate of 595,000 tons of coal used for this purpose, nearly all of which is anthracite, the fact is sufficient to show the important relation which this branch of the iron business holds to the anthracite coal trade of Pennsylvania, and how disastrous would be the effects upon that trade, if these establishments should, from any cause, be compelled to suspend operations."

# COMMERCIAL STATISTICS.

## STATISTICS OF THE AMERICAN WHALE FISHERY.

The following statistics, &c., of the American Whale Fishery, carefully prepared by Henry P. Haven, Esq., of New London, Conn., may be relied upon for their general accuracy. The information was elicited by certain inquiries propounded for the consideration of that gentleman by Wm. H. Starr, Esq., of New York, with the view of its publication in the Merchants' Magazine; and to the interest which Mr. Starr takes in our Journal, as the organ of the commercial interests, as well as in the industrial pursuits of our country, our readers are indebted for the present statement.

The whaling fleet of the United States consisted, on the 1st November, 1846, of 668 ships and barks, 27 brigs, 19 schooners, and 1 sloop, with a total tonnage of 228,757 tons, owned in the following places:—

| Ports where owned. | Ships & Barks. | Brigs. | Schooners. | Whole No. Vessels. | Tons. |
|---|---|---|---|---|---|
| New Bedford | 252 | 2 | 1 | 255 | 82,892 |
| New London | 69 | 1 | 6 & 1 sl. | 77 | 26,515 |
| Nantucket | 72 | 1 | 2 | 75 | 25,136 |
| Sag Harbor | 63 | . | . | 63 | 23,094 |
| Fair Haven | 48 | . | . | 48 | 15,403 |
| Stonington | 27 | . | . | 27 | 8,476 |
| Warren | 24 | . | . | 24 | 8,027 |
| Mystic | 17 | . | . | 17 | 5,263 |
| Cold Spring | 8 | . | . | 8 | 2,815 |
| Greenport | 11 | . | . | 11 | 3,253 |
| Edgartown | 8 | 2 | . | 10 | 3,017 |
| Providence | 8 | . | . | 8 | 2,942 |
| Newport | 8 | 1 | 1 | 10 | 2,724 |
| Provincetown | 4 | 7 | 8 | 19 | 2,579 |
| Westport | 9 | 3 | . | 12 | 2,260 |
| Fall River | 6 | 1 | . | 7 | 1,939 |
| Bristol | 5 | 1 | . | 6 | 1,743 |
| Falmouth | 4 | . | . | 4 | 1,470 |
| Holmes' Hole | 3 | 1 | . | 4 | 1,287 |
| Wareham | 3 | 1 | . | 4 | 1,023 |
| Lynn | 3 | . | . | 3 | 980 |
| Bridgeport | 3 | . | . | 3 | 972 |
| Sippican | 2 | 3 | . | 5 | 910 |
| Salem | 2 | . | . | 2 | 660 |
| Freetown | 2 | . | . | 2 | 634 |
| New Suffolk | 2 | . | . | 2 | 501 |
| Dartmouth | 1 | 1 | . | 2 | 498 |
| New York | 1 | . | . | 1 | 495 |
| Portsmouth | 1 | . | . | 1 | 348 |
| Plymouth | 1 | 1 | . | 2 | 274 |
| Somerset | 1 | . | . | 1 | 137 |
| Boston | . | . | 1 | 1 | 100 |
| Barnstable | . | 1 | . | 1 | 90 |
| Total | 668 | 27 | 19 & 1 sl. | 715 | 228,757 |

In this statement are included 2 ships at New Bedford, 3 at Sag Harbor, and 1 at Edgartown, which have heretofore been in the whaling business, but are now (perhaps temporarily) employed in the merchant service. Also, the ship Jane, of Warren, considered as a missing ship—last reported full, bound home, in Nov. 1845. Of this large fleet, only 58 vessels were in port on the 1st of Nov. 1846; 6 are in the merchant service, 1 in the Davis Straits fishery, and the remainder, 650, now at sea, in the Atlantic, Indian, and Pacific Oceans.

The rapid increase of this large branch of our commerce, may be shown from the following statement:—

WHALING VESSELS OWNED IN THE UNITED STATES.

| | Ships & Barks. | Brigs. | Schooners. |
|---|---|---|---|
| January 1, 1829..... | 184 | 17 | 2 |
| " 1, 1834..... | 414 | 7 | .. |
| " 1, 1843..... | 589 | 55 | 14 |
| " 1, 1846..... | 680 | 34 | 22 |

While, as here shown, the Americans have prosecuted successfully, for a long series of years, the whale fishery, the English have, during the same time, been gradually reducing their fleet. In 1833, 110 sperm whale ships arrived in England, and on the 1st of January, 1846, only 43 whalers from Great Britain were afloat in the southern sperm and right whale fishery, with a prospect of still further reduction, and as the high protective duties of the English government on oils and bone have been much reduced, and will soon expire altogether, it is very improbable that any revival will take place there. The English have about 45 ships in the north whale fishery, among the ice, where Yankee enterprise has left them undisturbed until the present year; when the ship McLellan, from New London, being, it is said, the first American vessel which ever visited those seas, made a voyage to Davis Straits, but owing to the large quantities of ice, was unable to reach the whaling ground, and returned with only one fish.

The French may be said to emulate the Americans, with much better results than the more lethargic Englishman. They have now forty ships in the southern right whale fishery, and it is believed, have pursued the business with profit for several years. A few ships in Bremen, and other northern ports in Europe, not exceeding probably twenty in all, with perhaps forty from New Holland and other British colonies, include the whaling fleet of the world, numbering about 900 vessels. The largest ship of this fleet, is the Atlantic, of New London, 699¼ tons, and the smallest is probably the schooner Garland, also of New London, 49 tons.

It is believed that very few not particularly familiar with the details of the whale fishery, are aware of the large amount of capital and enterprise which is invested in this business, in the United States, and few have probably realized how much the hardy whalemen and adventurous owners have contributed to the wealth of the nation. The valuable cargoes with which the ships return are drawn entirely from the deep, and it is emphatically an *American* enterprise; built and owned as the ships are by Americans, and navigated by a crew, at least two-thirds of which, by law, must be citizens of the United States, and who receive one-third of the oil and bone taken, for their services. The outfits of the ship, each voyage also consists of provisions, stores, sails, rigging, &c., &c., which are almost entirely the product of our own country. Thus we purchase the return cargo with our agricultural and mechanical labor, and thus draw treasures from the seas, to supply our own wants and luxuries; and a market has always been found in Europe for our surplus. But these facts will be more clearly seen from the following statements, carefully compiled from authentic sources.

The amount of capital invested in the whale fishery is estimated as follows:—

| | | | | |
|---|---|---|---|---|
| 668 ships and barks will cost an average, when fitted for sea, of | | | $29,600.. | $19,272,000 |
| 27 brigs | " | " | 13,000.. | 351,000 |
| 20 schooners | " | " | 9,000.. | 180,000 |
| | | | | $19,903,000 |

It is believed that this is a low estimate; and some persons whose experience aids their judgment, would make it over $20,000,000.

The following table shows the import of whale and sperm oil into the United States;

for the past five years, with the average price per gallon and pound, each year, with the total value of the same :—

WHALE OIL.

| | Barrels. | Average price per gallon. | Total value. |
|---|---|---|---|
| 1841..... | 207,848 | 31½ cts. | $2,393,964 18 |
| 1842..... | 161,041 | 33¾ | 1,712,066 65 |
| 1843..... | 206,727 | 34½ | 2,246,605 50 |
| 1844..... | 261,235 | 36½ | 3,003,544 38 |
| 1845..... | 272,186 | 32¾ | 2,807,938 81 |

SPERM OIL.

| | Barrels. | Average price per gallon. | Total value. |
|---|---|---|---|
| 1841..... | 157,413 | 94 cts. | $4,660,996 78 |
| 1842..... | 165,687 | 78 | 3,808,822 81 |
| 1843..... | 166,985 | 68 | 3,313,817 32 |
| 1844..... | 139,481 | 90½ | 3,976,254 60 |
| 1845..... | 157,603 | 88 | 4,368,755 36 |

The quantity of whalebone imported must be estimated previous to 1844, as no authentic record was kept, it is believed, prior to that time. A right whale will usually yield *at least* 800 lbs. whalebone to 100 bbls. of oil, and the estimate for 1841, '42, and '43, is made on that basis.

WHALEBONE.

| | Pounds. | Average price per pound. | Total value. |
|---|---|---|---|
| 1841..... | 1,700,000 | 19½ cts. | $331,500 00 |
| 1842..... | 1,300,000 | 23 | 299,000 00 |
| 1843..... | 1,700,000 | 35¾ | 607,750 00 |
| 1844..... | 2,532,445 | 40 | 1,012,978 00 |
| 1845..... | 3,167,142 | 40 | 1,060,722 57 |

Varying from $5,800,000, in 1842, to $8,200 000, in 1845.

The average number of vessels arrived from whaling voyages, during the past four years, is 229 ; and it is estimated that it cost to refit those vessels for their next voyage, as follows :—

| | |
|---|---|
| Fitting 189 ships and barks, at $17,000..... | $3,026,000 |
| " 51 brigs and schooners, at $7,000..... | 357,000 |
| Expended each year in outfits of whale vessels..... | $3,383,000 |

Of the amount of outfits set down above as the average of each vessel, the following articles comprise all, it is believed, which are the produce of foreign countries :—

| | |
|---|---|
| 4 tons Manilla hemp for rigging..... | $625 |
| Say 1,500 yds, linen duck, as an average, (part of the ships using cotton,)..... | 600 |
| Try-pots for trying oil..... | 150 |
| 150 lbs. tea, and 1,000 lbs. coffee..... | 150 |
| Small tools, crockery, &c., say..... | 25 |
| | $1,550 |

The following articles made use of in fitting a whale ship are sometimes imported but are also the produce of this country :—

| | |
|---|---|
| 700 lbs. sheathing copper..... | $1,600 |
| 1,200 galls. molasses..... | 300 |
| 1,000 lbs. sugar..... | 80 |
| 2 tons hemp, for cordage..... | 320 |
| | $2,300 |

The following are among the largest items of cost in fitting a whale ship of American growth or manufacture :—

| | |
|---|---|
| 3,000 bbls., oil casks and shooks | $3,500 |
| 222 bbls. beef and pork | 2,000 |
| 20,000 lbs. bread | 600 |
| 50 bbls. flour | 300 |
| 1,500 yards cotton duck, for sails | 425 |
| | $6,825 |

The crews of vessels in the whaling service, as has been previously mentioned, receive payment for their services in shares of the catchings. The number of men required to perform the duties of the voyage varies, according to the size of the vessel, from 15 to 45. An average, for all the vessels in the fleet, would probably be 27, which would give us nearly 20,000 seamen. The shares received by each man, vary from about one-half of 1 per cent, for the "green hand," on his first voyage, to about 6 per cent for the captain, and amount, taken together, to one-third of the oil and bone, or whatever else may be procured, leaving two-thirds for the owners.

The capture of the sperm (*cachalot*) and right whale (*balaena australis* and *balaena mysticitus*) were formerly made distinct objects; and vessels fitted for the former seldom, if ever, killed the right whale when met with. From the difficulty experienced, of late years, in procuring full cargoes of sperm oil, it is now customary for many of the ships to divide their time,—spending the summer months on the northwest coast of America, and coast of Kamschatka, looking for right whales, and the winter and fall months in the warmer latitudes, for sperm.

The cruising ground of the fleet may be apportioned somewhat as follows:—About 60 schooners, brigs, and small barks, in the Atlantic Ocean, for sperm oil; 32 barks in the Indian Ocean, for sperm oil; 6 schooners are tenders to right whalers; 1 ship in Davis Straits fishery; 1 schooner sperm whaling, Pacific Ocean; 1 schooner, sealing; 6 ships in the merchant service, and most of the 608 remainder, have their cruising ground in the north and south Pacific Oceans, for sperm and right whales;—say 130 cruising for sperm only, and 478 for sperm and right whales. In this statement, the 58 vessels in port are set down to their probable destination.

The following statistical tables, showing the average time and success of the whaling vessels, for the past four years, are arranged from a statement in the New Bedford Shipping List of January 6, 1846:—

SPERM WHALERS.

*Ships and Barks from the Pacific and Indian Ocean.*

| | Ships arrived. | Average time absent. | Sperm. | Whale. |
|---|---|---|---|---|
| 1842 | 55 | 41m. 8days. | 1,973bbls. | 135bbls. |
| 1843 | 70 | 41 13 | 1,641 | 124 |
| 1844 | 69 | 43 .. | 1,419 | 293 |
| 1845 | 90 | 43 21 | 1,291 | 387 |

It will be seen from these figures, that while the voyages for the sperm whale are gradually lengthening, the quantity of sperm oil, taken by these ships, is rapidly decreasing, and this is still further proved by the fact, that notwithstanding the large number of ships, the import of sperm oil, up to November 1, 1846, was 48,000 barrels less than last year, at the same date.

ATLANTIC SPERM FISHERY.

*In small Barks, Brigs, and Schooners.*

| | Vessels arrived. | Average time absent. | Sperm. | Whale. |
|---|---|---|---|---|
| 1842 | 65 | 13m.28days. | 280bbls. | 12bbls. |
| 1843 | 55 | 14 20 | 288 | 25 |
| 1844 | 42 | 12 .. | 248 | 38 |
| 1845 | 43 | 13 7 | 238 | 76 |

The diminution in this branch of the fishery of one-third in three years, has enabled it to maintain very nearly the average of time and quantity.

RIGHT WHALERS.

*Ships and Barks which cruise most of the time for right whale oil, and do not return the year after they sail.*

| | Ships arrived. | Average time absent. | Whale. | Sperm. |
|---|---|---|---|---|
| 1842..... | 74 | 24m. 15days. | 1,722bbls. | 422bbls. |
| 1843..... | 90 | 25 10 | 1,987 | 311 |
| 1844..... | 112 | 25 9 | 2,059 | 248 |
| 1845..... | 101 | 24 .. | 2,180 | 196 |

This statement shows that the right whale ships also find the sperm whales harder to catch than formerly. It would here appear that the right whales had become more abundant, the time being shorter and the quantity greater, in 1845, than previously, But the ships arriving the present year, 1846, report right whales growing scarce; which, united with low prices, has effectually checked the disposition manifested the two previous years, to increase this branch of whaling.

RIGHT WHALERS.

*Which have arrived the next year after sailing.*

| | Ships arrived. | Average time absent. | Whale. | Sperm. |
|---|---|---|---|---|
| 1842..... | 13 | 10m. 15days. | 1,602bbls. | 122bbls. |
| 1843..... | 15 | 11 28 | 1,398 | 92 |
| 1844..... | 7 | 11 14 | 1,176 | 69 |
| 1845..... | 8 | 12 4 | 796 | 55 |

The present year, only one vessel has thus far returned, with a cargo of whale oil, which sailed in 1845.

## SAG HARBOR WHALE FISHERY, IN 1845.

LIST OF ARRIVALS OF WHALING VESSELS.

*With the Amount of the Produce of the Fishery, within the district of Sag Harbor, N. Y., during the year 1845, politely furnished for publication in the "Merchants' Magazine," by* LUTHER D. COOK, ESQ., *of Sag Harbor.*

| 1845. Arrived. | Ships and Barks. | Tons. | Absent. mos. | days. | Sperm. bbls. | Whale. bbls. | Wha'bone. lbs. | Owners & Agents. |
|---|---|---|---|---|---|---|---|---|
| Feb'y 10, | John Jay..... | 494 | 28 | 2 | 407 | 3,468 | 32,505 | N. & G. Howell. |
| 17, | Henry Lee..... | 409 | 29 | 7 | 109½ | 2,749 | 26,980 | S. & B. Huntting & Co. |
| 25, | Triad..... | 336 | 18 | 14 | 92 | 2,211 | 21,762 | Corwins & Howell. |
| 26, | Tuscany..... | 299 | 28 | 19 | 15 | 2,761 | 29,128 | John Budd. |
| Mar. 30. | Washington.... | 340 | 21 | 10 | 22½ | 2,641 | 22,967 | Huntting Cooper. |
| April 2, | Columbia..... | 285 | 21 | 12 | 205 | 2,401 | 22,654 | L. D. Cook & H. Green. |
| 2, | Daniel Webster. | 397 | 19 | 15 | 25 | 3,021 | 29,500 | Ezekiel Mulford. |
| 4, | Illinois..... | 413 | 17 | 9 | 27 | 2,831 | 27,686 | John Budd. |
| 22, | Caroline..... | 252 | 25 | 28 | 100 | 1,450 | 8,500 | Wiggins & Parsons. |
| May 9, | Neptune,... ... | 338 | 22 | 28 | 92 | 2,103 | 16,541 | S. & B. Huntting & Co. |
| 10, | Superior..... | 275 | 21 | 16 | 119 | 1,451 | 17,400 | Post & Sherry. |
| 11, | Ontario 2d..... | 489 | 20 | 11 | 288 | 3,083 | 32,000 | Post & Sherry. |
| 11, | Gem..... | 326 | 19 | 24 | 197½ | 2,546 | 25,824 | Huntting Cooper. |
| 13, | Marcus..... | 283 | 20 | 12 | 71 | 978 | 5,492 | N. & G. Howell. |
| 14, | Henry..... | 333 | 22 | 8 | 91 | 2,277 | 23,000 | Sam'l L'Hommedieu. |
| 20, | Huron..... | 290 | 19 | 28 | .. | 2,163 | 21,880 | L. D. Cook & H. Green. |
| 27, | Mary Ann..... | 380 | 30 | 1 | 75 | 2,552 | 20,300 | Mulford & Sleight. |
| 30, | Concordia..... | 265 | 28 | 0 | 147½ | 1,402 | 12,652 | Thomas Brown. |
| June 8, | Hamilton 1st... | 322 | 10 | 16 | 146 | 303 | 1,526 | Charles T. Dering. |
| 8, | Romulus ..... | 233 | 20 | 10 | 67 | 994 | 6,026 | Ezekiel Mulford. |
| 9, | Cadmus..... | 307 | 21 | 15 | 295 | 890 | 7,200 | Mulford & Sleight. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| July | 2, Delta..... | 314 | 22 | 14 | 191 | 1,198 | 8,784 | Corwins & Howell. |
| | 15, Roanoke..... | 251 | 11 | 15 | .. | 900 | 5,000 | Wiggins & Parsons. |
| | 30, Bayard.. .. ... | 339 | 22 | 2 | 38 | 2,040 | 21,730 | Corwins & Howell. |
| Aug't | 11, American..... | 283 | 22 | 22 | 99 | 1,256 | 9,656 | S. & B. Huntting & Co. |
| | 30, Sarah and Esther | 157 | 12 | 12 | 141 | 300 | 2,350 | Ireland, Wells, Carpenter. |
| Sept'r | 8, Hannibal.. ... | 311 | 24 | 4 | 89½ | 1,687 | 14,718 | S. & B. Huntting & Co. |
| | 25, Gentleman..... | 227 | 15 | 18 | ..* | .... | .... | Ira B. Tuthill. |
| Nov'r | 13, Oscar..... | 369 | 12 | 12 | 20 | 567 | 4,602 | Huntting Cooper. |
| | 29 arrivals in 1845... | 9,317 | | | 3,120 | 52,223 | 478,308 | |

29 arrivals in the District, in 1845..... 9,317 tons

35 departures from the District, in 1845..... 11,781 tons.
41 vessels sailed from the District, in 1843–44, and now out 14,974

76 total number vessels..... 26,755 tons, being the amount of tonnage employed in the whale fishery from the District of Sag Harbor, on the 1st of January, 1846. Average tonnage of each ship, 352 3-76 tons.

LIST OF VESSELS ENGAGED IN THE WHALE FISHERY.

*Which have sailed from the District of Sag Harbor, N. Y., during the year* 1845.

1845.

| Sailed. | Ships & Barks. | Tons. | Master. | Destination. | Owners & Agents. |
|---|---|---|---|---|---|
| June 13, | John Jay..... | 494 | John W. Graham.. | N.Pacific.. | N. & G. Howell. |
| 17, | Henry Lee..... | 409 | Benjamin C. Payne. | N.Pacific.. | S. & B. Huntting & Co. |
| 18, | Tuscany ..... | 299 | Charles Gooddale.. | N.Pacific.. | John Budd. |
| 22, | Triad..... | 236 | James E. Horton.. | N.Pacific.. | Ireland, Wells, Carpenter. |
| July 4, | Illinois..... | 413 | Daniel Jagger. .. | N.Pacific.. | John Budd, |
| 4, | Marcus ..... | 283 | Enoch H. Ryder.... | S.Atlantic. | N. & G. Howell. |
| 7, | Washington ... | 340 | Nathan C. Sandford | N.Pacific.. | Huntting Cooper. |
| 9, | Superior..... | 275 | William Mulford.. | N.Pacific.. | Post & Sherry. |
| 11, | Columbia..... | 285 | Samuel B. Pierson. | N.Pacific.. | L. D. Cook & H. Green. |
| 12, | Caroline..... | 252 | Jesse R. Halsey... | N.Pacific.. | Wiggins & Parsons. |
| 14, | Jefferson ..... | 434 | Sylvester P. Smith. | N.Pacific.. | Thomas Brown. |
| 21, | Mary Ann..... | 380 | Jonas Winters..... | N.Pacific.. | Mulford & Sleight. |
| 21, | Daniel Webster. | 397 | Ezekiel H. Curry.. | N.Pacific.. | Ezekiel Mulford. |
| 23, | Neptune... ... | 338 | Richard J. Nichols. | N.Pacific.. | S. & B. Huntting & Co. |
| Aug. 9, | Gem..... | 326 | James M. Worth... | N.Pacific.. | Huntting Cooper. |
| 13, | Ontario 2d..... | 489 | Barney R. Green.. | N.Pacific.. | Post & Sherry. |
| 21, | Laurens..... | 420 | Atkins Eldridge... | N.Pacific.. | Tiffany & Rogers. |
| 22, | Henry..... | 338 | George B. Brown. | N.Pacific.. | Samuel L'Hommedieu. |
| 24, | Concordia..... | 265 | David Loper..... | N.Pacific.. | Thomas Brown. |
| Sept. 2, | Cadmus..... | 307 | David Smith, Jr.... | N.Pacific.. | Mulford & Sleight. |
| 5, | Hamilton ..... | 322 | Job Babcock..... | N.Pacific.. | Charles T. Dering. |
| 9, | Delta..... | 314 | David Weeks..... | N.Pacific.. | Corwins & Howell. |
| 15, | Huron..... | 290 | Sam'l C. Woodruff. | N.Pacific.. | L. D. Cook & H. Green. |
| 15, | Roanoke..... | 251 | Smith Baldwin.... | N.Pacific.. | Wiggins & Parsons. |
| 24, | Romulus..... | 233 | Philander Winters. | S.Atlantic. | Ezekiel Mulford. |
| 28, | American..... | 283 | William Pierson... | N.Pacific.. | S. & B. Huntting & Co. |
| Oct. 15, | Nile..... | 403 | Isaac M. Case..... | N.Pacific.. | Ireland, Wells, Carpenter. |
| 15, | Sarah & Esther. | 157 | Lewis L. Bennet.... | S.Atlantic. | Ireland, Wells, Carpenter. |
| 16, | Hannibal..... | 311 | John Canning..... | N.Pacific.. | S. & B. Huntting & Co. |
| 30, | Elizabeth Frith.. | 355 | John Bishop, Jr... | N.Pacific. | Post & Sherry. |
| Nov. 13, | Gentleman .... | 227 | Alanson G. Post... | S.Atlantic. | Ira B. Tuthill. |
| Dec. 2, | Plymouth..... | 425 | Lawr'e B. Edwards. | N.Pacific.. | L. D. Cook & H. Green. |
| 6, | Konohassett... | 427 | Theron B. Worth.. | N.Pacific.. | Huntting Cooper. |
| 8, | Oscar..... | 360 | William A. Green. | N.Pacific.. | Huntting Cooper. |
| 9, | Bayard..... | 339 | John N. Fordham.. | N.Pacific.. | Corwins & Howell. |

35 departures in 1845, 11,781.

* 450 bbls. elephant oil, and 211 tons guano.

LIST OF VESSELS ENGAGED IN THE WHALE FISHERY.

*From the District of Sag Harbor, N. Y., which have not returned home during the past year, and are now at sea. January 1, 1846.*

1843.

| Sailed. | Ships & Barks. | Tons. | Master. | Destination. | Owners and Agents. |
|---|---|---|---|---|---|
| Apr. 21, | Citizen | 464 | David F. Lansing | N.Pacific. | Mulford & Sleight. |
| July 7, | Ann | 299 | Samuel C. Leek | N.Pacific. | Ezekiel Mulford. |
| 7, | Thames | 414 | James R. Bishop | N.Pacific. | Thomas Brown. |
| 20, | Noble | 274 | Doyle Sweeney | N.Pacific. | Ira B. Tuthill. |
| 21, | France | 411 | S. Woodr. Edwards | N.Pacific. | N. & G. Howell. |
| Sept. 16, | Alexander | 370 | William A. Jones | N.Pacific. | William A. Jones. |
| Oct'r 4, | William Tell | 367 | Benjamin Glover | N.Pacific. | Thomas Brown. |
| 11, | Crescent | 340 | Sylvester Miller | N.Pacific. | Post & Sherry. |
| 18, | Helen | 424 | Sylv. D. Cartwright | N.Pacific. | Charles T. Dering. |
| 30, | Josephine | 397 | Thomas W. Roys | N.Pacific. | Post & Sherry. |
| Nov. 8, | Manhattan | 440 | Mercator Cooper | N.Pacific. | John Budd. |
| Dec. 4, | Fanny | 391 | H. H. Edwards | N.Pacific. | N. & G. Howell. |

1844.

| | | | | | |
|---|---|---|---|---|---|
| May 2, | Silas Richards | 454 | Richard Dering | N.Pacific. | Mulford & Sleight. |
| 13, | Philip 1st | 294 | Joseph S. Case | N.Pacific. | Ireland, Wells, Carpenter. |
| 23, | Panama | 465 | Thomas E. Crowell | N.Pacific. | N. & G. Howell. |
| 28, | Arabella | 367 | Hodges Babcock | Coast Chili. | N. & G. Howell. |
| 28, | Ohio | 297 | Thomas Lowen | N.Pacific. | Post & Sherry. |
| June 1, | Portland | 292 | Jared Wade, Jr. | N.Pacific. | S. & B. Huntting & Co. |
| 4, | Niantic | 452 | Shamgu H. State | N.Pacific. | Charles T. Dering. |
| 5, | Franklin | 391 | Edward Haley | N.Pacific. | Huntting Cooper. |
| 24, | Sabina | 416 | David P. Vail | N.Pacific. | Charles T. Dering. |
| July 1, | Timor | 289 | Nathaniel Edwards | N.Pacific. | Huntting Cooper. |
| 8, | Hudson | 368 | Henry Nickerson, jr. | N.Pacific. | L. D. Cook & H. Green. |
| 22, | Alcippe | 377 | Jesse Halsey | N.Pacific. | Post & Sherry. |
| 29, | St. Lawrence | 523 | Edward M. Baker | N.Pacific. | L. D. Cook & H. Green. |
| 30, | John Wells | 366 | Jerem'h W. Hedges | N.Pacific. | Thomas Brown. |
| Aug. 12, | Thos. Dickason | 454 | William Lowen | N.Pacific. | Mulford & Sleight. |
| 23, | Acasta | 284 | Daniel B. Harlow | N.Pacific. | John Budd. |
| 29, | Ontario 1st | 368 | James M. Green | N.Pacific. | S. & B. Huntting & Co. |
| 30, | Barbara | 260 | Henry French | S.Atlantic. | Charles T. Dering. |
| 31, | Nimrod | 280 | William F. Fowler | N.Pacific. | Charles T. Dering. |
| 31, | Washington 2d | 236 | George W. Corwin | N.Pacific. | Wiggins & Parsons. |
| Sept. 4, | Neva | 363 | Nathaniel Case | N.Pacific. | Ireland, Wells, Carpenter. |
| 18, | Martha | 359 | David R. Drake | N.Pacific. | L. D. Cook & H. Green. |
| 19, | Levant | 382 | James M. Havens | N.Pacific. | Nathan N. Tiffany. |
| 19, | Noble 2d | 273 | William B. Howes | N.Pacific. | Charles T. Dering. |
| 28, | Wiscasset | 380 | William H. Payne | N.Pacific. | S. & B. Huntting & Co. |
| Oct'r 5, | Italy | 298 | Frederick Weld | N.Pacific. | David G. Floyd. |
| 10, | Phenix | 314 | Samuel P. Brigga | N.Pacific. | L. D. Cook & H. Green. |
| 14, | Salem | 470 | David Hand | N.Pacific. | Mulford & Sleight. |
| Nov. 7, | Lucy Ann | 309 | Edwin P. Brown | N.Pacific. | Wiggins, Parsons & Cook. |

41 vessels..... 14,974 tons, sailed in 1843 and 1844.

## WOOL TRADE OF ROCHESTER, NEW YORK.

From small beginnings, the Rochester wool trade has risen to the most important in the State. An amount equal to one-eighth of the whole product of the State of New York is purchased and sent to the Eastern markets by dealers in the city of Rochester. They operate largely in Western New York, and extend their purchases, through agencies, to every part of Northern Ohio and Michigan. The "Rochester Democrat" has compiled below a table, showing the amount of wool shipped from Rochester during the navigation season, for three years. The table does not, of course, indicate the entire quantity shipped by Rochester dealers, because many of their largest purchases are made by agents, at the doors of the wool-growers, and shipped at other and more convenient points.

| | 1844. | 1845. | 1846. |
|---|---|---|---|
| April | 62,089 | 40,156 | 15,929 |
| May | 51,530 | 56,093 | 76,310 |
| June | 123,750 | 84,476 | 57,732 |
| July | 415,629 | 471,128 | 168,286 |
| August | 44,812 | 143,886 | 196,387 |
| September | 17,741 | 140,431 | 162,724 |
| October | 17,577 | 128,227 | 130,066 |
| November | 31,900 | 87,942 | 44,979 |
| Total.....lbs. | 764,758 | 1,152,159 | 852,413 |

It will be seen that there was a considerable falling off in the shipments of 1846. Several causes have contributed to this result. The main one, probably, is the increased attention paid to the purchase of wool at other points in Western New York. Formerly, the great bulk was purchased exclusively in Rochester; but lately the villages of Le Roy, Batavia, Attica, and Dansville, have become important wool markets; and when the price is low, as it was the past season, and the demand light, wool-growers prefer selling at the nearest market, not having sufficient inducements to seek a market at a distance. The low prices of 1846 may have induced some to hold over their stocks. On this point, however, there is considerable difference of opinion.

We find in "Document No. 6," of the United States Treasury Department, a letter from Aaron Errickson, Esq., of Rochester, one of our oldest wool-dealers, who has, we believe, been engaged in the business ever since Rochester became a prominent wool market. From this, which was written at the request of the Secretary of the Treasury, we have made a few extracts in relation to the purchase of wool at this point. The following table will show the average prices of wool in the Rochester market, for a series of years. The average price of wool in Western New York was realized by the growers, for the last eleven years, as follows:—

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1835, | average price | 35 | cents | per | pound. | 1841, | average price | 36½ | cents | per pound. |
| 1836, | " | 36 | " | " | | 1842, | " | 30½ | " | " |
| 1837, | " | 37 | " | " | | 1843, | " | 28 | " | " |
| 1838, | " | 35½ | " | " | | 1844, | " | 39½ | " | " |
| 1839, | " | 47½ | " | " | | 1845, | " | 29½ | " | " |
| 1840, | " | 33 | " | " | | 1846, | " | 24½ | " | " |

Although the manufacturers and dealers purchased the clip of 1839 at the average cost, as above stated, in the autumn of the same year wool declined to nearly the price of 1840.

The average price of 1846 has been furnished us from the same source. By the extract below, it will be seen that Mr. Errickson last year tried the experiment of shipping wool to England—with what success, we leave him to tell in his own language:—

"I have, the present season, shipped to England about 40,000 pounds of American fleece wool, grown in Western New York. This wool cost at the hand of the growers 33 cents per pound, and averaged in quality about the second grade of fine wool. The eight sample bags of these shipments (and they determine the value of the whole) have been sold in Leeds at a price which, by adding the difference in exchange, is equal to 40 cents per lb. To arrive at the relative value of wool in this country and England, it will be necessary to add to the American cost, for collecting, packing, and transporting to tide-water, or to the factories of New England, not less than two cents per pound; which, added to the price paid the growers, makes the home value 35 cents, leaving a difference against the British manufacturer of five cents per pound; and as, from the great expense of shipping to and selling wool in England, the present experiment will rather pay a loss than a profit, the difference must be still greater before successful exportations can take place."

It is the opinion of many of our best-informed dealers that the shipment of wool to England cannot be attended with success until the quality of our surplus changes. The great difficulty is, that we have annually a large surplus of medium grade wools, for which there is no demand in England—their deficiency being mostly confined to the finer kinds. Until we produce a surplus of fine wools, we can probably never become extensive exporters.

## COMMERCIAL STATISTICS OF THE UNITED STATES.

The following table exhibits the value of domestic exports of the United States, from 1821 to 1845, inclusive, embracing Cotton, Tobacco leaf, Rice, Flour, Pork, Lard, Beef, Cattle, Hides, Butter, Cheese, Skins and Furs, Fish, &c. &c., &c.

DOMESTIC PRODUCE AND MANUFACTURE.

*Statement exhibiting the value of Domestic Produce and Manufacture, and of Bullion and Specie, exported from the United States, from* 1821 *to* 1845, *inclusive.*

| Years. | Cotton. | Tobacco leaf. | Rice. | Flour. | Pork, hog's lard, etc. | Beef, cattle, hides, etc. |
|---|---|---|---|---|---|---|
| 1821 | $20,157,484 | $5,648,962 | $1,494,307 | $4,298,043 | $1,354,116 | $698,323 |
| 1822 | 24,035,058 | 6,222,838 | 1,553,482 | 5,103,280 | 1,357,899 | 844,534 |
| 1823 | 20,445,520 | 6,282,672 | 1,820,985 | 4,962,372 | 1,291,322 | 739,461 |
| 1824 | 21,947,401 | 4,855,566 | 1,882,982 | 5,759,176 | 1,489,051 | 707,299 |
| 1825 | 36,846,649 | 6,115,623 | 1,925,245 | 4,212,127 | 1,832,679 | 930,465 |
| 1826 | 25,025,214 | 5,347,208 | 1,917,445 | 4,121,466 | 1,892,429 | 733,430 |
| 1827 | 29,359,545 | 6,577,123 | 2,343,908 | 4,420,081 | 1,555,698 | 772,636 |
| 1828 | 22,487,229 | 5,269,960 | 2,620,696 | 4,286,939 | 1,495,830 | 719,661 |
| 1829 | 26,575,311 | 4,982,974 | 2,514,370 | 5,793,651 | 1,493,629 | 674,955 |
| 1830 | 29,674,883 | 5,586,365 | 1,986,824 | 6,085,953 | 1,315,245 | 717,683 |
| 1831 | 25,289,492 | 4,892,388 | 2,016,267 | 9,938,458 | 1,501,644 | 829,982 |
| 1832 | 31,724,682 | 5,999,769 | 2,152,631 | 4,880,623 | 1,928,196 | 774,087 |
| 1833 | 36,191,105 | 5,755,968 | 2,744,418 | 5,613,010 | 2,151,558 | 958,076 |
| 1834 | 49,448,402 | 6,595,305 | 1,122,272 | 4,520,781 | 1,796,001 | 755,219 |
| 1835 | 64,961,302 | 8,250,577 | 2,210,331 | 4,394,777 | 1,776,732 | 638,761 |
| 1836 | 71,284,925 | 10,058,640 | 2,548,750 | 3,572,599 | 1,383,344 | 699,116 |
| 1837 | 63,240,102 | 5,795,647 | 2,309,279 | 2,987,269 | 1,299,796 | 585,146 |
| 1838 | 61,556,811 | 7,892,029 | 1,721,819 | 3,698,299 | 1,312,346 | 528,231 |
| 1839 | 61,238,982 | 9,832,943 | 2,460,198 | 6,925,170 | 1 777,230 | 371,646 |
| 1840 | 63,870,307 | 9,883,957 | 1,942,076 | 10,143,615 | 1,894,894 | 623,373 |
| 1841 | 54 330,341 | 12,576,703 | 2,010,107 | 7,759,646 | 2,621,537 | 904,918 |
| 1842 | 47,593,464 | 9,540,755 | 1,907,387 | 7,375,356 | 2,629,403 | 1,212,638 |
| 1843 | 49,119,806 | 4,650,979 | 1,625,726 | 3,763,073 | 2,120,020 | 1,092,949 |
| 1844 | 54,063,501 | 8,397,255 | 2,182,468 | 6,759,488 | 3,236,479 | 1,810,551 |
| 1845 | 51,739,643 | 7,469,819 | 2,160,456 | 5,398,593 | 2,991,284 | 1,926,809 |

STATEMENT—CONTINUED.

| Years. | Butter and cheese | Skins and furs. | Fish. | Wood, and manufact's of. | Manufactures. | Specie and bullion. |
|---|---|---|---|---|---|---|
| 1821 | $190,287 | $766,205 | $973,591 | $1,822,077 | $2,584,916 | $10,478,059 |
| 1822 | 221,041 | 501,302 | 915,838 | 1,651,258 | 2,923,147 | 10,810,180 |
| 1823 | 192,778 | 672,917 | 1,004,800 | 1,638,734 | 2,947,797 | 6,372,987 |
| 1824 | 204,205 | 661,455 | 1,136.704 | 2,037,288 | 4,634,355 | 7,014,552 |
| 1825 | 247,787 | 524,602 | 1,078,773 | 1,988,220 | 5,417,978 | 8,797,055 |
| 1826 | 207,765 | 582,478 | 924,922 | 2,331,006 | 5,278,420 | 4,704,533 |
| 1827 | 184,049 | 441,690 | 987,447 | 1,990,869 | 5,422,836 | 8,014,880 |
| 1828 | 176,354 | 626,235 | 1,066,633 | 2,161,767 | 5,309,668 | 8,243,476 |
| 1829 | 176,205 | 526,507 | 968,068 | 2,081,406 | 5,194,491 | 4,924,020 |
| 1830 | 142,370 | 641,760 | 756,677 | 2,056,289 | 5,320,980 | 2,178,773 |
| 1831 | 264,796 | 750,938 | 929,884 | 2,063,311 | 5,088,890 | 9,014,931 |
| 1832 | 290,820 | 691,909 | 1,056,721 | 2,149,651 | 5.050,833 | 5,656,341 |
| 1833 | 258,452 | 841,933 | 990,290 | 2,663,102 | 6,557,080 | 2,611,701 |
| 1834 | 190,099 | 797,844 | 853,674 | 2,507,061 | 6,247,893 | 2,076,758 |
| 1835 | 164,809 | 759,953 | 1,008,534 | 3,402,934 | 7,294,073 | 6,477,775 |
| 1836 | 114,083 | 658,662 | 967,890 | 2,860,691 | 6,107,528 | 4,324,336 |
| 1837 | 96,176 | 651,908 | 769,840 | 3,155,992 | 7,142,040 | 5,976,249 |
| 1838 | 148.191 | 633,945 | 819,003 | 3,116,196 | 8,402.597 | 3.508,046 |
| 1839 | 127.550 | 732,087 | 850,538 | 3,604,399 | 8,325,082 | 8,776,748 |
| 1840 | 210,749 | 1,237,789 | 720,164 | 2,926,846 | 9,873,462 | 8,417,014 |
| 1841 | 504.815 | 993,262 | 751,783 | 3,576,805 | 9,953,020 | 10,034,332 |
| 1842 | 388.185 | 598,487 | 730,106 | 3,230,003 | 8,410.694 | 4,813,539 |
| 1843 | 508,968 | 453,869 | 497.217 | 1,687,809 | 6,779,527 | 1,520,791 |
| 1844 | 758,829 | 742,196 | 897,015 | 3,011,968 | 9,579,724 | 5,454,214 |
| 1845 | 878,865 | 1,248,355 | 1,012,007 | 3,099,455 | 10,329,701 | 8,606,495 |

VALUES OF THE PRINCIPAL ARTICLES IMPORTED INTO THE U. STATES.

The following table shows the value of Cottons, Woolens, Silks, Linens, manufactures of Silks, manufactures of Hemp, Iron and Steel, Earthen, Stone, and China Ware, Specie and Bullion, &c., imported into the United States in each year, from 1821 to 1845 inclusive:—

| Years. | Cottons. | Woollens. | Silks. | Linens, and man. of flax. |
|---|---|---|---|---|
| 1821..... | $7,589,711 | $7,437,737 | $4.486,924 | $2,564,159 |
| 1822..... | 10,246,907 | 12,185,904 | 6,840,928 | 4,132,747 |
| 1823..... | 8,554,877 | 8,268,038 | 6,718,444 | 3,803,007 |
| 1824..... | 8,895,757 | 8,386,597 | 6,205,317 | 3,873,616 |
| 1825..... | 12,509,516 | 11,392,264 | 10,299,743 | 3,887,787 |
| 1826..... | 8,348,034 | 8,431,974 | 8,327,909 | 2,987,026 |
| 1827..... | 9,316,153 | 8,742,701 | 6,712,015 | 2,656,786 |
| 1828..... | 10,996,270 | 8,679,505 | 7,686,640 | 2,239,539 |
| 1829..... | 8,362,017 | 6,881,489 | 7,192,698 | 2,842,431 |
| 1830..... | 7,862,326 | 5,766,396 | 5,932,242 | 3,011,280 |
| 1831..... | 16,090,224 | 12,627,229 | 11,117,646 | 3,790,111 |
| 1832..... | 10,399,653 | 9,992,424 | 9,248,907 | 4,073,164 |
| 1833..... | 7,660,449 | 13,262,509 | 9,498,366 | 2,132,557 |
| 1834..... | 10,145,181 | 11,879,328 | 10,998,964 | 5,485,389 |
| 1835..... | 15,367,585 | 17,834,424 | 16,677,547 | 6,472,021 |
| 1836..... | 17,876,087 | 21,080,003 | 22,980,212 | 9,807,493 |
| 1837..... | 11,150,841 | 8,500,292 | 14,352,823 | 5,544,761 |
| 1838..... | 6,599,330 | 11,512,920 | 9,871,248 | 9,972,097 |
| 1839..... | 14,908,181 | 18,575,945 | 21,742,369 | 7,703,065 |
| 1840..... | 6,504,484 | 9,071,184 | 9,835,757 | 4,614,466 |
| 1841..... | 11,757,036 | 11,001,939 | 15,554,897 | 6,846,807 |
| 1842..... | 9,578,515 | 8,375,725 | 9,457,417 | 3,659,184 |
| 1843..... | 2,958,796 | 2,472,154 | 2,704,013 | 1,484,921 |
| 1844..... | 13,641,478 | 9,475,762 | 8.463,179 | 4,492,826 |
| 1845..... | 13,863,282 | 19,666,176 | 9,928,411 | 4,923,109 |

TABLE—CONTINUED.

| | Manufactures of hemp. | Manufactures of iron and steel. | Earthen, stone, & China ware | Specie and bullion. | Wines. |
|---|---|---|---|---|---|
| 1821..... | $1,120,450 | $1,868,529 | $763,883 | $8,064,890 | $1,873,464 |
| 1822..... | 1,857,328 | 3,155,575 | 1,164,609 | 3,369,846 | 1,864,627 |
| 1823..... | 1,497,006 | 2,967,121 | 1,143,415 | 5,097,896 | 1,291,542 |
| 1824..... | 1,780,199 | 2,831,702 | 888,869 | 8,379,835 | 1,050,898 |
| 1825..... | 2,134,384 | 3,706,416 | 1,086,890 | 6,150,765 | 1,826,263 |
| 1826..... | 2,062,728 | 3,186,485 | 1,337,589 | 6,880,956 | 1,781,188 |
| 1827..... | 1,883,466 | 3,973,537 | 1,181,047 | 8,151,148 | 1,621,035 |
| 1828..... | 2,087,318 | 4,180,915 | 1,554,010 | 7,489,741 | 1,507,538 |
| 1829..... | 1,468,485 | 3,430,908 | 1,337,744 | 7,403,612 | 1,569,562 |
| 1830..... | 1,333,476 | 3,655.848 | 1,259,060 | 8,155,964 | 1,535,102 |
| 1831..... | 1,477,149 | 4,827,833 | 1,624,604 | 7,305,945 | 1,673,058 |
| 1832..... | 1,640,618 | 5,306,245 | 2,024,020 | 5,907,504 | 2,387,479 |
| 1833..... | 2,036,035 | 4,135,437 | 1,818,187 | 7,070,368 | 2,269,497 |
| 1834..... | 1,679.995 | 4,746,621 | 1,591,413 | 17,911,632 | 2,944,388 |
| 1835..... | 2,555,847 | 5,351,616 | 1,697,682 | 13,131,447 | 3,750,608 |
| 1836..... | 2,365,897 | 7,880,869 | 2,709,187 | 13,400,881 | 4,332,034 |
| 1837..... | 1,951,626 | 6,526,593 | 1,823,400 | 10,516,414 | 4,105,741 |
| 1838..... | 1,591,757 | 3,613,286 | 1,385,536 | 17,747,116 | 2,318,282 |
| 1839..... | 2,096,716 | 6,507,510 | 2,483,258 | 5,595,176 | 3,441,697 |
| 1840..... | 1,588,155 | 3,184,900 | 2,010,231 | 8,882,813 | 2,209,176 |
| 1841..... | 2,566,381 | 4.255,960 | 1,536,450 | 4,988,633 | 2,091,411 |
| 1842..... | 1,273,534 | 3,572,081 | 1,557,961 | 4,087,016 | 1,271,019 |
| 1843..... | 526,502 | 1,012,086 | 588,036 | 22,320 335 | 301,925 |
| 1844..... | 1,003,429 | 3,313,796 | 1.633,482 | 5,830,429 | 909,005 |
| 1845..... | 897,345 | 5,077,788 | 2,439,515 | 4,070,222 | 1,470,186 |

## VALUES OF THE PRINCIPAL ARTICLES IMPORTED INTO THE U. STATES.

TABLE, CONTINUED—INCLUDING THE VALUES OF SPIRITS, MOLASSES, TEAS, COFFEE, SUGAR SALT, SPICES, LEAD, HEMP, AND CORDAGE, IMPORTED INTO THE UNITED STATES IN EACH YEAR, FROM 1821 TO 1845, INCLUSIVE.

| Years. | Spirits. | Molasses. | Teas. | Coffee. |
|---|---|---|---|---|
| 1821..... | $1,804,798 | $1,719,227 | $1,322,636 | $4,489,970 |
| 1822..... | 2,450,261 | 2,398,355 | 1,860,777 | 5,552,649 |
| 1823..... | 1,791,419 | 2,634,222 | 2,361,245 | 7,098,119 |
| 1824..... | 2,142,620 | 2,413,648 | 2,786,252 | 5,437,029 |
| 1825..... | 2,135,210 | 2,547,715 | 3,728,935 | 5,250,828 |
| 1826..... | 1,587,712 | 2,838,728 | 3,752,281 | 4,159,558 |
| 1827..... | 1,651,436 | 2,818,982 | 1,714,882 | 4,464,391 |
| 1828..... | 2,331,656 | 2,788,471 | 2,451,197 | 5,192,338 |
| 1829..... | 1,447,914 | 1,484,104 | 2,060,457 | 4,588,585 |
| 1830..... | 658,990 | 995,776 | 2,425,018 | 4,227,021 |
| 1831..... | 1,087,787 | 2,432,488 | 1,418,037 | 6,317,666 |
| 1832..... | 1,365,018 | 2,524,281 | 2,788,353 | 9,099,464 |
| 1833..... | 1,537,226 | 2,867,936 | 5,484,603 | 10,567,299 |
| 1834..... | 1,319,245 | 2,989,020 | 6,217,949 | 8,762,657 |
| 1835..... | 1,682,681 | 3,074,172 | 4,522,806 | 10,715,466 |
| 1836..... | 1,917,381 | 4,077,312 | 5,342,811 | 9,653,053 |
| 1837..... | 1,470,802 | 3,444,701 | 5,903,054 | 8,657,760 |
| 1838..... | 1,476,918 | 3,865,285 | 3,497,156 | 7,640,217 |
| 1839..... | 2,222,426 | 4,364,234 | 2,428,419 | 9,744,103 |
| 1840..... | 1,592,564 | 2,910,791 | 5,427,010 | 8,546,222 |
| 1841..... | 1,743,237 | 2,628,519 | 3,466,245 | 10,444,882 |
| 1842..... | 886,866 | 1,942,575 | 4,527,108 | 8,938,638 |
| 1843..... | 273,616 | 1,134,820 | 3,849,862 | 6,399,189 |
| 1844..... | 878,977 | 2,833,753 | 4,120,785 | 9,764,554 |
| 1845..... | 1,191,120 | 3,154,782 | 5,761,788 | 6,243,532 |

TABLE—CONTINUED.

| Years. | Sugar. | Salt. | Spices. | Lead. | Hemp and cordage. |
|---|---|---|---|---|---|
| 1821..... | $3,553,895 | $609,021 | $310,281 | $284,701 | $618,856 |
| 1822..... | 5,035,003 | 625,932 | 505,340 | 266,441 | 1,202,085 |
| 1823..... | 3,259,031 | 740,866 | 580,956 | 155,175 | 796,731 |
| 1824..... | 5,411,617 | 613,486 | 655,149 | 128,570 | 590,035 |
| 1825..... | 4,232,662 | 589,125 | 626,039 | 301,408 | 484,826 |
| 1826..... | 5,311,954 | 677,058 | 594,568 | 265,409 | 636,356 |
| 1827..... | 4,577,464 | 535,201 | 322,780 | 303,615 | 698,855 |
| 1828..... | 3,546,794 | 443,469 | 432,504 | 305,662 | 1,191,441 |
| 1829..... | 3,622,655 | 714,618 | 461,539 | 52,146 | 762,239 |
| 1830..... | 4,680,922 | 671,979 | 457,723 | 20,395 | 279,743 |
| 1831..... | 4,931,824 | 535,138 | 279,095 | 52,410 | 335,572 |
| 1832..... | 2,936,719 | 634,910 | 306,013 | 124,632 | 987,253 |
| 1833..... | 4,755,856 | 996,418 | 919,493 | 89,019 | 624,054 |
| 1834..... | 5,538,102 | 839,315 | 493,932 | 183,762 | 669,307 |
| 1835..... | 6,806,425 | 655,097 | 712,648 | 54,112 | 616,341 |
| 1836..... | 12,514,718 | 724,527 | 1,018,134 | 37,521 | 904,103 |
| 1837..... | 7,203,806 | 862,617 | 847,617 | 17,874 | 530,080 |
| 1838..... | 7,586,831 | 1,028,418 | 438,272 | 8,766 | 597,565 |
| 1839..... | 9,924,632 | 887,092 | 839,241 | 20,756 | 716,999 |
| 1840..... | 5,581,128 | 1,015,426 | 558,940 | 19,455 | 786,115 |
| 1841..... | 8,802,742 | 821,495 | 498,893 | 3,702 | 742,970 |
| 1842..... | 6,503,563 | 841,572 | 568,636 | 579 | 353,888 |
| 1843..... | 2,532,618 | 710,489 | 264,650 | 227 | 262,278 |
| 1844..... | 7,196,091 | 911,512 | 364,084 | 102 | 345,531 |
| 1845..... | 4,780,720 | 898,668 | 533,055 | 517 | 234,809 |

## REVENUES, BOUNTIES, &c., ON MERCHANDISE.

*Statement exhibiting the amount of duties on merchandise, tonnage, and light money, passports and clearances; drawback paid on foreign merchandise re-exported; drawback on domestic refined sugar, and domestic distilled spirits; bounties on pickled fish exported; allowances to vessels employed in the bank and cod fisheries; expenses of collection; and the nett revenue which accrued annually, from 1821 to 1845, inclusive.*

| Years. | DUTIES ON Merchandise. | Tonnage and light money. | Passports. | Gross revenue. | PAYMENTS FOR Drawback paid on Foreign merchandise. | Domestic refined sugar. | Domestic distilled spirits. | Bounties. | Allowances to fishing vessels. | Express of collection. | Nett revenue. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1821 | $18,844,864 31 | $98,177 60 | $9,858 00 | $18,952,899 91 | $2,909,212 48 | $5,362 80 | $36,970 61 | $11,107 80 | $181,160 71 | $693,167 13 | $15,115,418 38 |
| 1822 | 24,078,919 02 | 127,892 68 | 10,144 00 | 24,216,955 70 | 2,126,140 13 | 1,981 68 | 3,189 25 | 10,158 80 | 149,897 83 | 706,471 98 | 21,219,116 53 |
| 1823 | 22,316,752 25 | 89,263 10 | 12,573 00 | 22,418,588 35 | 3,774,065 69 | 2,281 68 | 3,517 60 | 10,938 50 | 176,706 08 | 733,242 38 | 17,717,836 42 |
| 1824 | 25,494,618 55 | 126,540 94 | 10,996 00 | 25,632,155 49 | 4,437,830 34 | 2,308 72 | 3,258 60 | 10,162 80 | 208,924 08 | 754,611 36 | 20,215,059 63 |
| 1825 | 31,673,608 07 | 138,847 83 | 12,638 00 | 31,825,093 90 | 5,372,859 11 | 1,612 68 | 1,952 32 | 10,560 60 | 198,724 97 | 851,479 62 | 25,387,904 60 |
| 1826 | 26,093,373 50 | 150,182 43 | 11,716 00 | 26,255,271 93 | 6,178,886 04 | 2,627 57 | 6,561 03 | 13,640 40 | 215,859 01 | 840,219 71 | 14,997,470 17 |
| 1827 | 27,943,989 31 | 145,701 76 | 13,124 00 | 28,102,815 07 | 4,625,253 45 | 5,834 36 | 11,168 28 | 8,879 20 | 206,185 55 | 867,438 08 | 22,378,056 15 |
| 1828 | 29,946,706 80 | 139,641 14 | 10,920 00 | 30,097,267 94 | 4,052,371 37 | 2,045 48 | 14,712 54 | 9,026 23 | 239,145 20 | 889,629 27 | 24,890,337 88 |
| 1829 | 27,603,078 58 | 138,861 27 | 11,060 00 | 27,747,999 85 | 4,160,586 70 | 45,092 56 | ..... | 9,007 69 | 261,069 94 | 975,730 23 | 22,296,512 73 |
| 1830 | 28,382,846 35 | 130,436 06 | 11,356 00 | 28,524,638 41 | 4,319,400 27 | 84,230 48 | 1,035 92 | 9,073 10 | 197,642 28 | 1,029,682 83 | 22,883,573 53 |
| 1831 | 36,304,342 35 | 67,004 49 | 2,250 00 | 36,373,596 84 | 4,598,785 34 | 63,688 65 | 1,290 91 | 13,466 20 | 200,428 39 | 1,133,086 13 | 30,312,851 12 |
| 1832 | 28,270,578 09 | 49,561 40 | ..... | 28,320,139 49 | 5,272,480 43 | 42,840 65 | 3,110 00 | 14,392 00 | 219,745 27 | 1,278,674 38 | 21,488,896 76 |
| 1833 | 21,512,753 36 | 71,729 43 | ..... | 21,584,482 79 | 5,163,938 49 | 34,643 80 | 2,960 06 | 13,284 48 | 245,182 40 | 1,326,691 13 | 14,797,782 48 |
| 1834 | 18,124,916 82 | 70,988 76 | ..... | 18,195,905 58 | 3,070,119 03 | 162,086 05 | 11,973 15 | 10,852 21 | 218,218 76 | 1,264,545 37 | 13,458,111 01 |
| 1835 | 25,490,753 18 | 81,212 87 | ..... | 25,571,966 05 | 2,445,717 38 | 41,172 00 | 14,484 28 | 9,536 80 | 223,784 93 | 1,284,997 69 | 21,552,272 97 |
| 1836 | 30,624,619 48 | 57,048 78 | ..... | 30,681,668 26 | 2,651,757 12 | 83,768 60 | 3,010 84 | 6,731 80 | 213,091 03 | 1,397,469 10 | 26,325,889 77 |
| 1837 | 17,554,365 02 | 52,762 60 | ..... | 17,607,127 12 | 2,436,202 39 | 100,642 70 | 4,663 52 | 7,360 42 | 250,181 03 | 1,492,947 84 | 13,315,129 22 |
| 1838 | 18,677,804 13 | 73,785 57 | ..... | 18,751,589 70 | 1,390,010 06 | 145,494 30 | 8,589 68 | 5,474 30 | 314,149 49 | 1,514,633 34 | 15,373,238 53 |
| 1839 | 24,436,408 97 | 85,007 56 | ..... | 24,521,416 53 | 1,537,787 55 | 357,488 30 | 16,507 36 | 4,743 50 | 319,858 03 | 1,724,591 89 | 20,560,439 90 |
| 1840 | 13,839,921 04 | 44,536 47 | ..... | 13,884,457 51 | 1,326,718 26 | 523,263 45 | 26,233 83 | 4,953 90 | 301,629 34 | 1,542,319 24 | 10,159,339 44 |
| 1841 | 19,166,465 66 | 54,553 25 | ..... | 19,221,018 91 | 1,186,348 30 | 638,536 34 | 40,684 42 | 4,760 40 | 355,140 01 | 1,483,960 08 | 15,516,589 36 |
| 1842 | 15,865,913 71 | 28,100 59 | ..... | 15,894,014 30 | 1,293,641 43 | 89,447 39 | 31,066 89 | 5,629 30 | 235,618 07 | 1,458,442 48 | 12,780,173 65 |
| 1843* | 6,950,108 09 | 4,905 53 | ..... | 6,955,013 62 | 494,207 21 | 8,426 04 | 12,699 70 | 3,315 05 | 169,932 38 | 664,400 17 | 5,602,033 07 |
| 1844 | 29,351,076 15 | 30,275 79 | ..... | 29,381,351 94 | 1,461,822 73 | 71,851 80 | 26,032 52 | 6,663 60 | 249,074 25 | 1,807,500 81 | 25,758,406 22 |
| 1845 | 30,862,295 22 | 29,970 08 | ..... | 30,892,265 30 | 1,782,295 46 | 74,371 81 | 21,740 28 | 4,174 20 | 289,840 07 | 2,053,468 98 | 26,666,374 50 |

* For six months, ending June 30.

TABULAR STATEMENT EXHIBITING THE VALUE OF EXPORTS OF UNITED STATES ANNUALLY, FROM 1821 TO 1845.

| Yr. end. Sept. 30. | Dom. produce, &c. *Dolls.* | Foreign merchandise. *Dolls.* | Total. *Dolls.* | Yr. end. Sept. 30. | Dom. produce, &c. *Dolls.* | Foreign merchandise. *Dolls.* | Total. *Dolls.* |
|---|---|---|---|---|---|---|---|
| 1821, | 43,671,894 | 21,302,488 | 64,974,382 | 1834, | 81,024,162 | 23,312,811 | 104,336,973 |
| 1822, | 49,874,079 | 22,286,202 | 72,160,281 | 1835, | 101,189,082 | 29,604,495 | 121,693,577 |
| 1823, | 47,155,408 | 27,543,622 | 74,699,030 | 1836, | 106,916,680 | 21,746,360 | 128,663,040 |
| 1824, | 50,649,500 | 25,337,157 | 75,986,657 | 1837, | 95,564,414 | 21,854,962 | 117,419,376 |
| 1825, | 66,944,745 | 32,590,643 | 99,535,388 | 1838, | 96,033,321 | 12,452,795 | 108,486,616 |
| 1826, | 53,055,710 | 24,539,612 | 77,595,322 | 1839, | 103,533,891 | 17,494,525 | 121,028,416 |
| 1827, | 58,921,691 | 23,403,136 | 82,324,837 | 1840, | 113,895,634 | 18,190,312 | 132,085,946 |
| 1828, | 50,669,669 | 21,595,017 | 72,264,686 | 1841, | 106,382,722 | 15,469,081 | 121,851,803 |
| 1829, | 55,700,193 | 16,658,478 | 72,358,671 | 1842, | 92,969,996 | 11,721,538 | 104,691,534 |
| 1830, | 59,462,029 | 14,487,479 | 73,849,508 | 1843, | 77,793,783 | 6,552,697 | 84,346,480 |
| 1831, | 61,277,057 | 20,033,526 | 81,310,583 | 1844, | 99,715,179 | 11,487,867 | 111,200,046 |
| 1832, | 63,137,470 | 24,039,473 | 87,176,943 | 1845. | 99,299,776 | 15,346,830 | 114,646,606 |
| 1833, | 70,317,698 | 19,822,735 | 90,140,433 | | | | |

## EXPORT TRADE OF THE ISLAND OF CUBA.

We publish below a tabular statement, derived from the "*Diarior de la Marina*," of Havana, of the exports of sugar, coffee, manufactured and unmanufactured tobacco, timber, and copper, from the island of Cuba, during the last five years.

| | SUGAR. | | | COFFEE. | | |
|---|---|---|---|---|---|---|
| Years. | Spanish ports. | Foreign ports. | Total Cases. | Spanish ports | Foreign ports. | Total arrobas. |
| 1841.... | 140,837 | 688,719 | 829,556 | 70,122 | 1,164,884 | 1,235,006 |
| 1842.... | 121,257 | 696,390 | 817,643 | 129,727 | 1,869,119 | 1,998,846 |
| 1843.... | 121,455 | 767,648 | 889,103 | 127,535 | 1,504,247 | 1,631,782 |
| 1844.... | 172,245 | 837,320 | 1,009,565 | 17,169 | 292,839 | 310,008 |
| 1845.... | 131,157 | 344,111 | 475,286 | 95,810 | 463,512 | 559,322 |

| | TOBACCO—UNMANUFACTURED. | | | |
|---|---|---|---|---|
| Years. | Spanish ports. | Foreign ports. | Total pounds. | Value. |
| 1841..... ... | 2,108,157 | 3,649,420 | 5,757,577 | $719,369 |
| 1842 ..... | 1,157,058 | 3,445,775 | 5,941,333 | 742,854 |
| 1843..... | 1,354,222 | 5,854,016 | 7,208,238 | 901,030 |
| 1844..... | 856,570 | 3,777,198 | 4,633,768 | 585,156 |
| 1845..... | 2,747,258 | 3,927,605 | 6,674,863 | 834,621 |

| | TOBACCO—MANUFACTURED. | | | |
|---|---|---|---|---|
| 1841..... | 10,236 | 159,935 | 170,171 | 1,677,743 |
| 1842..... | 9,841 | 140,148 | 150,289 | 1,454,269 |
| 1843..... | 62,346 | 195,654 | 257,997 | 2,556,250 |
| 1844..... | 5,541 | 152,964 | 158,505 | 1,564,650 |
| 1845..... | 9,608 | 118,973 | 128,581 | 1,261,300 |

| | MAHOGANY. | | CEDAR. | |
|---|---|---|---|---|
| Years. | No. of yards. | Value. | No. of yards. | Value. |
| 1841..... | 20,787 | $66,261 03 | 19,245 | $21,071 04 |
| 1842..... | 23,397 | 56,161 08½ | 31,482 | 40,101 07 |
| 1843..... | 33,504 | 108,370 01 | 37,909 | 43,947 |
| 1844..... | 51,100 | 166,909 03 | 35,585 | 44,046 |
| 1845..... | 75,089 | 212,480 06 | 59,987 | 65,218 |

| COPPER. | | |
|---|---|---|
| Years. | Quintals. | Value. |
| 1841..... | 693,060 | $4,505,490 |
| 1842..... | 783,971 | 4,981,405 |
| 1843..... | 768,650 | 2,013,543 |
| 1844..... | 801,445 | 2,003,587 |
| 1845..... | 889,922 | 2,199,202 |

## COTTON-WOOL TRADE—GREAT BRITAIN.

### IMPORT AND SALES OF COTTON-WOOL.

The following statement, showing the import of cotton-wool into Liverpool, weekly, during the year 1845; also, the number of bags and bales sold to the dealers, spinners, and exporters; the reported sales to speculators, &c., and weekly price of Uplands, for 1845, is derived from Burns' Commercial Glance:—

| 1845. | No. of bags. imported. | No. of bags taken by the trade. | No. of bags. taken by exporters. | No. of bags taken by speculators. | Tot. No. of bags sold. | Weekly price of Uplands. |
|---|---|---|---|---|---|---|
| Jan. 4 | 72,640 | 7,800 | 150 | 1,500 | 9,300 | 3 a 4 1/2 |
| 11 | | 27,000 | 300 | 1,000 | 28,300 | 3 1/2 a 4 1/2 |
| 18 | 40,888 | 37,610 | 300 | 6,000 | 43,910 | 3 1/2 a 4 3/4 |
| 25 | 39,414 | 41,300 | 300 | 3,000 | 44,600 | 3 3/4 a 4 3/4 |
| Feb. 1 | 25,066 | 27,120 | 1,600 | 4,800 | 33,520 | 3 3/4 a 4 1/2 |
| 8 | 18,700 | 30,150 | 800 | 8,900 | 39,850 | 3 a 5 |
| 15 | 19,620 | 30,500 | 150 | 25,300 | 55,950 | 4 1/4 a 5 |
| 22 | 36,788 | 20,220 | 450 | 15,050 | 35,720 | 3 1/2 a 4 3/4 |
| March 1 | 34,206 | 24,380 | 150 | 17,550 | 42,080 | 3 3/4 a 4 1/2 |
| 8 | 34,343 | 37,250 | 1,900 | 32,350 | 71,500 | 3 3/4 a 4 3/4 |
| 15 | 5,678 | 21,400 | 300 | 12,000 | 33,700 | 4 1/2 a 5 |
| 22 | 4,247 | 12,750 | 700 | 5,500 | 18,950 | 3 3/4 a 5 1/2 |
| 29 | 31,319 | 26,070 | 350 | 2,500 | 28,920 | 3 1/2 a 4 1/2 |
| April 5 | 44,288 | 38,500 | 2,450 | 9,500 | 50,450 | 3 1/2 a 4 3/4 |
| 12 | 10,324 | 34,700 | 3,130 | 8,700 | 46,530 | 3 a 5 1/2 |
| 19 | 72,405 | 31,910 | 2,500 | 7,500 | 41,910 | 3 3/4 a 4 3/4 |
| 26 | 28,224 | 41,290 | 1,060 | 30,100 | 72,450 | 3 1/2 a 5 |
| May 3 | 88,718 | 20,720 | 900 | 29,600 | 51,220 | 3 1/2 a 5 1/2 |
| 10 | 18,786 | 32,060 | 2,050 | 27,000 | 61,110 | 3 3/4 a 5 |
| 17 | 51,476 | 18,800 | 1,400 | 5,200 | 25,400 | 3 1/2 a 4 7/8 |
| 24 | 28,126 | 31,420 | 1,000 | 5,000 | 37,420 | 3 1/2 a 4 1/2 |
| 31 | 18,189 | 33,990 | 1,200 | 5,000 | 40,190 | 3 1/2 a 4 7/8 |
| June 7 | 125,496 | 25,530 | 1,710 | 1,750 | 28,990 | 3 3/4 a 5 |
| 14 | 98,667 | 31,770 | 3,100 | 9,000 | 43,870 | 3 1/2 a 6 |
| 21 | 48,225 | 35,570 | 1,300 | 11,000 | 47,870 | 3 3/4 a 5 1/2 |
| 28 | 12,388 | 26,090 | 2,780 | 11,900 | 40,770 | 3 1/2 a 4 3/4 |
| July 5 | 65,477 | 39,910 | 2,080 | 19,000 | 60,990 | 3 1/2 a 4 3/4 |
| 12 | 45,623 | 35,370 | 2,750 | 26,900 | 65,020 | 3 1/2 a 4 3/4 |
| 19 | 54,549 | 27,760 | 8,230 | 36,700 | 72,690 | 3 3/4 a 5 |
| 26 | 24,151 | 31,510 | 4,420 | 10,850 | 46,780 | 3 1/2 a 5 1/2 |
| Aug. 2 | 46,652 | 22,600 | 2,770 | 7,600 | 32,970 | 3 3/4 a 5 1/2 |
| 9 | 11,252 | 24,860 | 3,700 | 8,400 | 36,960 | 3 1/2 a 5 1/2 |
| 16 | 22,692 | 31,290 | 2,300 | 8,400 | 41,990 | 3 1/2 a 5 1/2 |
| 23 | 6,884 | 23,480 | 3,160 | 5,400 | 32,040 | 3 1/2 a 5 1/2 |
| 30 | 29,453 | 33,330 | 1,900 | 13,700 | 48,930 | 3 1/2 a 4 3/4 |
| Sept. 6 | 3,992 | 31,750 | 1,200 | 31,300 | 64,250 | 3 1/2 a 5 |
| 13 | 4,262 | 18,538 | 450 | 14,000 | 32,980 | 3 3/4 a 5 |
| 20 | 21,874 | 26,300 | 500 | 11,700 | 38,500 | 3 3/4 a 5 1/2 |
| 27 | 9,981 | 19,100 | 800 | 6,500 | 26,400 | 3 7/8 a 5 1/2 |
| Oct. 4 | 7,353 | 22,230 | 200 | 1,500 | 23,930 | 3 3/4 a 4 3/4 |
| 11 | 3,315 | 13,550 | 700 | 2,500 | 16,750 | 3 3/4 a 4 7/8 |
| 18 | 6,623 | 14,800 | 200 | 5,000 | 20,000 | 3 3/4 a 4 1/2 |
| 25 | 10,109 | 12,840 | ..... | 4,500 | 17,340 | 3 3/4 a 4 3/4 |
| Nov. 1 | 16,948 | 12,420 | 150 | 5,500 | 18,070 | 3 3/4 a 4 3/4 |
| 8 | 8,026 | 16,000 | ..... | ..... | 16,000 | 3 3/4 a 5 |
| 15 | 13,950 | 23,560 | ..... | 12,000 | 35,560 | 3 1/2 a 4 1/2 |
| 22 | 13,443 | 12,540 | ..... | 3,000 | 15,540 | 3 3/4 a 4 3/4 |
| 29 | 37,641 | 25,370 | ..... | 12,500 | 37,870 | 3 1/2 a 4 3/4 |
| Dec. 6 | 23,852 | 24,960 | ..... | 500 | 25,460 | 3 1/2 a 7 1/2 |
| 13 | 12,707 | 25,840 | 100 | 500 | 26,440 | 3 3/4 a 4 3/4 |
| 20 | 15,746 | 17,730 | ..... | 700 | 20,430 | 3 a 4 1/2 |
| 27 | 24,616 | 22,120 | 100 | 1,300 | 23,520 | 3 3/4 a 4 1/2 |

| | | | |
|---|---|---|---|
| 1st three months..... | 5,854 | } | Forwarded into the country by interior importers and not accounted for in the sales. |
| 2d " ..... | 6,876 | | |
| 3d " ..... | 7,683 | | |
| 4th " ..... | 4,592 | | |

BAGS OF COTTON-WOOL IMPORTED, EXPORTED, ETC.

The following statement shows the number of bags and bales of cotton imported, exported, taken for consumption, and the stock on hand in London, Liverpool, and Glasgow, each year, from 1831 to 1845, both inclusive:—

| Years. | Imported. | Exp'd, &c. | Tak. for consum., and destroyed by fire. | Stock in Lond., &c., 1st Jan., in each yr. | Stock in Liv'pool, 1st Jan'y in each year. | Stock in Glasgow 1st Jan., in ea. yr. | To. stock. on the 1st Jan'y in each year. |
|---|---|---|---|---|---|---|---|
| 1831.. | 901,764 | 80,699 | 862,205 | 42,852 | 258,100 | 21,268 | 322,220 |
| 1832.. | 902,240 | 65,100 | 858,434 | 37,381 | 212,356 | 26,575 | 276,306 |
| 1833.. | 931,796 | 79,066 | 877,589 | 34,102 | 197,960 | 13,058 | 245,120 |
| 1834.. | 946,585 | 90,895 | 883,280 | 35,243 | 180,780 | 9,127 | 215,150 |
| 1835.. | 1,089,309 | 107,240 | 937,616 | 26,296 | 145,311 | 13,953 | 185,560 |
| 1836.. | 1,191,744 | 100,853 | 1,031,094 | 24,470 | 184,700 | 20,843 | 230,013 |
| 1837.. | 1,163,839 | 128,535 | 1,064,931 | 60,820 | 204,490 | 23,500 | 289,000 |
| 1838.. | 1,429,062 | 102,370 | 1,265,116 | 64,150 | 170,853 | 24,370 | 259,373 |
| 1839.. | 1,109,550 | 121,659 | 1,043,511 | 46,450 | 348,349 | 26,300 | 321,099 |
| 1840.. | 1,599,343 | 126,045 | 1,274,729 | 31,640 | 206,049 | 27,790 | 265,479 |
| 1841.. | 1,341,659 | 117,330 | 1,118,717 | 50,660 | 366,140 | 27,248 | 464,048 |
| 1842.. | 1,384,894 | 141,457 | 1,221,693 | 68,240 | 429,830 | 40,190 | 538,268 |
| 1843.. | 1,556,982 | 121,410 | 1,357,662 | 74,570 | 456,600 | 30,234 | 561,404 |
| 1844.. | 1,479,331 | 134,882 | 1,427,482 | 84,160 | 653,900 | 46,092 | 785,955 |
| 1845.. | 1,855,660 | 120,595 | 1,577,617 | 91,775 | 740,580 | 61,627 | 902,982 |
| 1846.. | ..... | ..... | ..... | 90,060 | 885,480 | 84,990 | 1,060,430 |

## TIMBER TRADE OF THE UNITED KINGDOM.

TIMBER IMPORTED INTO THE UNITED KINGDOM IN EACH YEAR, FROM 1839 TO 1845.

We give below a return of the number of timber-laden ships, their tonnage and crews, entered inwards in the United Kingdom, in the seven years, 1839-45, distinguishing British from foreign, and the countries from which they came; together with a statement of the several proportions which British ships and tonnage, and crews employed, bear to foreign, with each country. The following is an abstract of the chief results:—

| 1839. | BRITISH. | | | FOREIGN. | | |
|---|---|---|---|---|---|---|
| | Ships. | Tons. | Men. | Ships. | Tons. | Men. |
| Russia..... | 374 | 96,495 | 3,894 | 100 | 32,376 | 1,407 |
| Sweden..... | 16 | 3,029 | 137 | 102 | 27,221 | 1,128 |
| Prussia..... | 216 | 45,767 | 1,948 | 355 | 87,003 | 3,773 |
| Brit. N. A. colonies | 1,895 | 656.443 | 25,725 | ... | ..... | ..... |
| All other countries | 93 | 24,392 | 937 | 104 | 7,494 | 555 |
| Total..... | 2,594 | 822,131 | 32,641 | 661 | 154,094 | 6,863 |
| 1840. | | | | | | |
| Russia..... | 258 | 65,356 | 2,582 | 147 | 47,739 | 2,056 |
| Sweden..... | 12 | 2,298 | 94 | 123 | 33,366 | 1,358 |
| Prussia..... | 182 | 36,314 | 1,575 | 418 | 104,874 | 4,426 |
| Brit. N. A. colonies | 2,079 | 745,386 | 28,451 | ... | ..... | ..... |
| All other countries | 116 | 29,818 | 1,310 | 93 | 8,003 | 538 |
| Total..... | 2,647 | 879,172 | 34,012 | 781 | 193,982 | 8,378 |
| 1841. | | | | | | |
| Russia..... | 256 | 62,203 | 2,486 | 133 | 47,195 | 1,963 |
| Sweden..... | 10 | 1,824 | 83 | 121 | 33,020 | 1,270 |
| Prussia..... | 114 | 22,319 | 971 | 323 | 80,174 | 3,458 |
| Brit. N. A. colonies | 2,054 | 851,434 | 28,618 | ... | ..... | ..... |
| All other countries | 97 | 26,454 | 1,159 | 13 | 1,057 | 73 |
| Total..... | 2,531 | 964,234 | 33,317 | 590 | 161,466 | 6,764 |

TABLE—Continued.

| 1842. | BRITISH. Ships. | Tons. | Men. | FOREIGN. Ships. | Tons. | Men. |
|---|---|---|---|---|---|---|
| Russia,..... | 180 | 46,079 | 1,783 | 87 | 30,780 | 1,263 |
| Sweden,..... | 21 | 4,162 | 155 | 92 | 23,990 | 963 |
| Prussia,..... | 109 | 21,334 | 892 | 179 | 48,120 | 1,967 |
| Brit. N. A. colonies,... | 1,223 | 464,500 | 17,494 | ... | ..... | ..... |
| All other countries,.... | 84 | 27,207 | 1,171 | 13 | 827 | 80 |
| Total,..... | 1,617 | 563,282 | 21,495 | 371 | 103,717 | 4,193 |
| **1843.** | | | | | | |
| Russia,..... | 349 | 88,467 | 3,894 | 74 | 2,434 | 964 |
| Sweden,..... | 19 | 3,396 | 135 | 130 | 33,226 | 1,296 |
| Prussia,..... | 88 | 15,252 | 662 | 268 | 70,404 | 2,917 |
| Brit. N. A. colonies,... | 1,841 | 689,731 | 26,519 | ... | ..... | ..... |
| All other countries,.... | 75 | 21,630 | 945 | 486 | 78,271 | 3,944 |
| Total,..... | 2,372 | 818,176 | 31,655 | 958 | 184,435 | 9,121 |
| **1844.** | | | | | | |
| Russia,..... | 421 | 99,126 | 3,789 | 78 | 25,372 | 1,035 |
| Sweden,..... | 14 | 3,269 | 145 | 143 | 37,418 | 1,504 |
| Prussia,..... | 159 | 29,744 | 1,240 | 440 | 108,302 | 4,503 |
| Brit. N. A. colonies,... | 1,955 | 723,109 | 26,760 | ... | ..... | ..... |
| All other countries,.... | 58 | 14,548 | 628 | 653 | 110,976 | 5,452 |
| Total,..... | 2,607 | 889,796 | 32,562 | 1,314 | 282,068 | 12,494 |
| **1845.** | | | | | | |
| Russia,..... | 483 | 113,628 | 4,439 | 133 | 41,925 | 1,737 |
| Sweden,..... | 15 | 2,704 | 113 | 207 | 56,497 | 2,217 |
| Prussia,..... | 105 | 16,431 | 792 | 747 | 169,550 | 7,318 |
| Brit. N. A. colonies,... | 2,608 | 964,276 | 36,489 | ... | ..... | ..... |
| All other countries,.... | 76 | 17,828 | 835 | 808 | 115,190 | 6,177 |
| Total,..... | 3,287 | 1,114,867 | 42,668 | 1,895 | 383,162 | 17,449 |

Returns have also been procured from Russia, Sweden, Norway, Prussia, Tuscany, the Papal States, Sardinia, and Austria, of the duties levied in each of those countries upon timber exported; and a return is made of the prices of Memel and Canadian timber in the port of London, duty paid, in the first weeks of January, 1846, and six preceding years. These, with the rates of duty payable at each period, were as under:—

| Date. | Memel. £ s. d. | £ s. d. | Rate of Duty. s. d. | | Canadian. £ s. d. | £ s. d. | R. of D. s. d. |
|---|---|---|---|---|---|---|---|
| Jan. 6, 1846, | 5 12 6 to | 5 17 6 | 25 0 | Red,.... | 4 6 0 to | 4 11 | 1 0 |
| | | | | Yellow, | 3 6 0 | 3 11 | |
| Jan. 7, 1845, | 5 0 2 | 5 10 0 | 25 0 | Red,.... | 3 18 6 | 4 6 | 1 0 |
| | | | | Yellow, | 3 6 0 | 3 11 | |
| Jan. 2, 1844, | 5 5 0 | 5 10 0 | 25 0 | Red,.... | 3 1 0 | 3 6 | 1 0 |
| | | | | Yellow, | 2 16 0 | 3 6 | |
| Jan. 3, 1843, | 7 15 0 | 8 0 0 | 55 0 | Red,.... | 3 15 0 | 4 5 | 10 0 |
| | | | | Yellow, | 3 5 0 | 3 15 | |
| Jan. 4, 1842, | 7 15 0 | 8 0 0 | 55 0 | Red,.... | 5 2 0 | 5 5 | 10 0 |
| | | | | Yellow, | 3 15 0 | 4 5 | |
| Jan. 5, 1841, | 7 15 0 | 8 0 0 | 55 0 | Red,.... | 5 2 0 | 5 5 | 10 0 |
| | | | | Yellow, | 4 0 0 | 4 10 | |
| Jan. 7, 1840, | 8 0 0 | 8 5 6 | 55 0 | Red,.... | 5 0 0 | 5 5 | 10 0 |
| | | | | Yellow, | 4 0 0 | 4 15 | |

## FLOUR INSPECTIONS AT NEW ORLEANS.

QUANTITY OF FLOUR INSPECTED AT NEW ORLEANS, FOR THE YEAR ENDING SEPTEMBER 1, 1846.

The flour inspectors of New Orleans have furnished the Price Current of that city with the following statement of the inspections of flour for each month during the year ended August 31, 1846. It will be seen that the total quantity is 414,846 barrels. The total quantity received from the interior during the same time, according to the records of the Price Current, was 837,985 barrels.

STATEMENT OF FLOUR INSPECTED FROM 1ST SEPTEMBER, 1845, TO 31ST AUGUST, 1846.

| | Barrels. | | Barrels. |
|---|---|---|---|
| 1845.—September,..... | 30,354 | 1846.—April,..... | 42,010 |
| October,..... | 43,686 | May,..... | 36,811 |
| November,..... | 36,852 | June,..... | 27,938 |
| December,..... | 32,441 | July,..... | 20,141 |
| 1846.—January,..... | 40,205 | August,..... | 22,301 |
| February,..... | 42,506 | | |
| March,..... | 39,601 | Total,..... | 414,846 |

## IRON TRADE, ETC., OF GREAT BRITAIN.

From a return ordered by the British Parliament we collect some interesting items relative to the iron trade. The quantity of foreign iron imported into Great Britain during the year ending the 5th of January, 1846, included 220 tons of iron in pigs, and 33,402 tons in bars unwrought. The value of the wrought iron and steel brought in was £21,197. Sweden supplied nearly all the iron in bars that was imported. A small portion of this foreign iron was re-exported from England. The exports of British iron from the United Kingdom in the year ending the 5th of January last, were—77,361 tons of pig, 153,882 tons of bar, 10,209 tons of bolt and rod, 22,936 tons of cast, 1,949 tons of wire, 2,974 tons of anchors, grapnels, &c., 11,738 tons of hoops, 6,463 tons of nails, 56,164 tons of all other sorts (except ordnance,) 2,250 tons of old iron for remanufacture, and 7,015 tons of unwrought steel. Prussia, Germany, the United States, Russia, and the British North American Colonies, are the best customers. The quantity of British hardwares and cutlery exported from the United Kingdom to the 5th of January last, was 20,754 tons, and the declared value £2,182,999. The United States of America took by far the largest quantity, the value being £719,324. The British North American colonies received to the amount of £200,475; Germany, of £159,459; the British territories in the East Indies, of £119,896; and the British West Indies, of £80,488. The value of the British machinery and mill-work exported from the United Kingdom in the year ending 5th January last, was £904,961, of which Russia took £116,804; Germany £113,847; France £103, 078; Spain £65,387; the British North American colonies £46,286; and the United States of America £44,611.

## STATISTICS OF SHIPPING AT QUEBEC.

During the season of navigation which closed in November, there have arrived at Quebec, from sea, 1,439 vessels, forming an aggregate of 573,208 tons; the crews of these vessels average about 15 men each, making 21,585 seamen. Of these—including new vessels—1,362 have cleared at Quebec, 90 of which were from Montreal, having partly loaded there, and had to have the remainder of their cargoes brought down in lighters, owing to the shallowness of Lake St. Peter, and consequently had to re-clear here; thus leaving 1,272 that have loaded at Quebec.

There were 30 vessels built at Quebec, during the year ended 1st November, 1846, forming an aggregate of 19,751 tons—of these 24 were square-rigged, forming 19,369 tons, which, added to the tonnage of arrivals in 1846, 573,208 tons, makes 592,577 tons of shipping that have loaded in the ports of Quebec and Montreal in 1846.

The number of arrivals at this port, from sea, is 36 less in 1846 than in 1845—but the tonnage of 1846 exceeds that of 1845 by 13,496 tons.

The number of arrivals at Montreal were, in 1845—202 vessels, tonnage 51,295; and in 1846—221 vessels, tonnage 55,968.

# RAILROAD AND CANAL STATISTICS.

## RAILROAD FROM LAKE MICHIGAN TO THE MISSISSIPPI RIVER.

TO THE EDITOR OF THE MERCHANTS' MAGAZINE AND COMMERCIAL REVIEW.

The importance of railroad communication between the different sections of our country, is becoming more and more appreciated. The eastern cities are deeply interested in facilitating intercourse between themselves and the great western valley. The opening trade with the west has but commenced. The tide of emigration towards those rich and vacant lands is constant; and millions of acres are yet to pour their harvests into the commercial emporiums of the east. The most expeditious channels of intercourse between the east and west will command the passengers and much of the trade. The great western railroad, extending from New York and Boston, will pass on the south shore of Lake Erie, thence across the peninsula of Michigan and round the head of Lake Michigan to Chicago. From this point is the only uncommenced or perhaps unsurveyed part of the route between the great lakes and the father of waters. The completion of a railroad from Chicago to the Mississippi, will consummate the connexion between New York, Boston, and New Orleans, by an expeditious inland route. The attention of eastern capitalists is invited to the feasibility and importance of this work. By an examination of the map of Illinois, it will be perceived, that directly west of Chicago, the Mississippi makes its great eastern bend, and approaches nearest the lake. This is the easiest and most natural connection. It is not only the shortest, but the most practicable. It passes through the most beautiful and inviting part of Illinois—one that will require but little grading—settled by an industrious and thriving population, affording every facility for making a road, and abounding in all the products of the northern and middle States.

A continuous railroad between Lake Michigan and the Mississippi may be made with comparatively little expense. The importance of this route is prospectively great. A railroad from Chicago directly west to the eastern bend of the Mississippi, will concentrate to one point the northern and southern travel. It will not only greatly facilitate the intercourse betweeen Iowa and the east, but by extending a branch north to Galena, following the grade of the great central railroad, the lead trade may be secured. With another extending down the Mississippi to Rock Island, and ultimately below the lower rapids, where the navigation of the river is uninterrupted for the greater part of the year, it will most certainly become the great channel of communication between the west and south and the eastern cities—embracing the most valuable and important sections of our country. Shall Boston or New York first adventure in this magnificent enterprise? Shall a large part of the Mississippi valley be thus brought into immediate commercial alliance with one part of the east? Great advantages may be secured—who shall win them? The rival cities in this great enterprise are New York and Boston. J. E. C.

## DELAWARE AND RARITAN CANAL.

CHARTER OF THE COMPANY—ORIGINAL COST OF CANAL—RECEIPTS AND EXPENDITURES FOR EIGHT YEARS—RATES OF TOLL ON THE CANAL IN 1846-7.

The Delaware and Raritan Canal Company was incorporated by the Legislature of New Jersey, February 4, 1830. Capital stock, $1,500,000. Duration of charter limited, originally, to 30 years, but extended to fifty years by a supplemental act, passed February 20th, 1831, which gave the State an election of purchase, at the expiration of that period, upon paying the appraised value of the work, not exceeding cost. This canal connects the Delaware river, below tide-water, at Bordentown, with the Raritan, below tide-water, at New Brunswick. It is 43 miles in length, 75 feet wide, on the top water line, and has 7 feet depth of water. The extension from Trenton to Bull's eddy, 22½ miles up the

Delaware, is 60 feet wide. There are 15 locks, namely: 7 ascending from the Delaware, and 7 descending to the Raritan—the elevation overcome being only 58 feet. The locks are 110 feet long, and 24 wide, in the clear. Pivot bridges are erected along the entire line, for the passage of masted sea-vessels.

ORIGINAL COST OF THE DELAWARE AND RARITAN CANAL.

| | | | |
|---|---|---|---|
| Canal sections, emb'nk-ments, excavations, waste weirs, &c..... | $1,354,372 50 | Railroad iron, balance, | $3,936 05 |
| Locks,..... | 285,256 28 | Damages,..... | 33,989 80 |
| Culverts,..... | 160,853 52 | Engineeer department, | 64,496 19 |
| Bridges,..... | 88,971 82 | Legal expenses,..... | 15,299 91 |
| Fences,..... | 26,487 04 | Office expenses,..... | 1,653 14 |
| Pier and Harbor at N. Brunswick,..... | 22,016 50 | Contingent expenses,... | 35,573 42 |
| Wharfing,..... | 8,379 99 | Salaries,..... | 38,526 35 |
| Dredging and improving Raritan,..... | 56,841 88 | Barges,..... | 319 23 |
| Timber,..... | 132,509 69 | Smith-shop,..... | 1,427 77 |
| Cement,..... | 93,240 45 | Interest,..... | 100,529 07 |
| Real estate,..... | 271,000 66 | Towing establishment, | 9,876 39 |
| | | Loan expenses,..... | 15,460 00 |
| | | Railroad on Heathcote & Lawrence Brook, | 17,372 94 |
| | | Due by contractors,.... | 1,506 09 |

RECEIPTS AND EXPENDITURES OF THE DELAWARE AND RARITAN CANAL.

| Years. | Receipts. | Expenditures | Years. | Receipts. | Expenditures. |
|---|---|---|---|---|---|
| 1834,..... | $11,604 19 | $49,243 74 | 1838..... | $73,507 24 | $46,007 72 |
| 1835,..... | 47,141 92 | | 1839..... | 74,843 52 | 44,698 48 |
| 1836,..... | 54,801 22 | 34,764 89 | 1840..... | 79,467 94 | 40,769 62 |
| 1837 ..... | 67,194 26 | 27,079 21 | 1841..... | 81,543 44 | 49,509 09 |

RATES OF TOLL ON THE DELAWARE AND RARITAN CANAL AND FEEDER, 1846.

| | Per mile. | | | Through. | Feeder. | | |
|---|---|---|---|---|---|---|---|
| | c. | m. | f. | $ cts. | c. | m. | f. |
| Apples, peaches, and other green fruits,...bush. | 0 | 0 | 4 | 1½ | 0 | 0 | 4 |
| Barley and buckwheat,..... | 0 | 0 | 2 | ½ | 0 | 0 | 2 |
| Bark, conveyed in boats,.....cord. | 1 | 5 | 0 | 65 | 1 | 0 | 0 |
| " " rafts,..... | 3 | 0 | 0 | 1 30 | 2 | 0 | 0 |
| Boards, plank, and scantling, in boats,...M. ft. | 1 | 0 | 0 | 43 | 0 | 8 | 5 |
| " " " rafts,..... | 4 | 0 | 0 | 1 75 | 2 | 0 | 0 |
| Brick.....M. | 1 | 2 | 0 | 50 | 1 | 2 | 0 |
| Baskets, empty,..... | 1 | 7 | 5 | 75 | 0 | 8 | 5 |
| Bran and shorts,.....bush. | 0 | 0 | 3 | ½ | 0 | 0 | 3 |
| Burr blocks,.....M. lbs. | 0 | 6 | 0 | 25 | 0 | 6 | 0 |
| Cattle,..... | 1 | 2 | 0 | 50 | 0 | 8 | 5 |
| Coal,.....ton. | 1 | 0 | 0 | 30 | 1 | 0 | 0 |
| Corn and corn meal,.....bush. | 0 | 0 | 3 | 1 | 0 | 0 | 3 |
| Corn meal,.....hhd. | 0 | 4 | 7 | 20 | 0 | 4 | 7 |
| Charcoal,.....bush. | 0 | 0 | 2 | ½ | 0 | 0 | 2 |
| Carriages,.....each. | 2 | 5 | 0 | 1 | 1 | 7 | 5 |
| Carts,..... | 1 | 2 | 0 | 50 | 0 | 8 | 5 |
| Clay, in hhds,.....ton. | 0 | 4 | 0 | 16 | 0 | 4 | 0 |
| Cider,.....bbl. | 0 | 1 | 5 | 6½ | 0 | 1 | 5 |
| Coaches, post,.....each. | 3 | 5 | 0 | 1 50 | 3 | 5 | 0 |
| Empty casks, hhds,..... | 0 | 1 | 5 | 6½ | 0 | 1 | 5 |
| " " bbls..... | 0 | 0 | 4 | 1½ | 0 | 0 | 4 |
| Fish, salted,.....bbl. | 0 | 1 | 2 | 5 | 0 | 1 | 2 |
| " fresh,.....M. lbs. | 1 | 0 | 0 | 43 | 0 | 8 | 5 |
| Flax,..... | 1 | 2 | 0 | 50 | 0 | 8 | 5 |
| Flax-seed,.....bush. | 0 | 0 | 4 | 1½ | 0 | 0 | 4 |
| Flour,.....bbl. | 0 | 1 | 0 | 4 | 0 | 1 | 0 |
| Gigs,.....each. | 1 | 2 | 0 | 50 | 1 | 2 | 0 |
| Grass-seed,.....bush. | 0 | 0 | 4 | 1½ | 0 | 0 | 4 |
| Grind-stones,.....M. lbs. | 0 | 5 | 0 | 22 | 0 | 5 | 0 |
| Hay or straw,.....ton. | 0 | 6 | 0 | 25 | 0 | 6 | 0 |
| Hogs,.....M. lbs. | 1 | 7 | 5 | 50 | 0 | 8 | 5 |
| Hoop-poles, hhds.....M. | 3 | 0 | 0 | 1 30 | 1 | 5 | 0 |
| " bbls..... | 1 | 5 | 0 | 65 | 0 | 7 | 5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Hydraulic cement,.....bbl. | 0 | 1 | 5 | 6¼ | 0 | 1 | 5 |
| Iron, pig.....ton. | 1 | 0 | 0 | 30 | 1 | 0 | 0 |
| " old scrap..... | 1 | 0 | 0 | 30 | 1 | 0 | 0 |
| " cast, water pipes,..... | 1 | 0 | 0 | 43 | 0 | 7 | 5 |
| " bar,..... | 1 | 0 | 0 | 43 | 0 | 7 | 5 |
| Lath, plastering.....bundle. | 0 | 0 | 3 | 1 | 0 | 0 | 3 |
| " shingling.....M. ft. r. m. | 0 | 5 | 0 | 22 | 0 | 5 | 0 |
| Lime, sand, manure and iron ore,.....M. lbs. | 0 | 2 | 0 | 8 | 0 | 2 | 0 |
| Marble, unwrought..... .... | 0 | 5 | 0 | 20 | 0 | 5 | 0 |
| " sawed,..... | 0 | 7 | 5 | 33 | 0 | 7 | 5 |
| " manufactured,..... | 1 | 0 | 0 | 43 | 1 | 0 | 0 |
| Nails,.....ton. | 1 | 0 | 0 | 43 | 0 | 7 | 5 |
| Oats,.....bush. | 0 | 0 | 3 | 1 | 0 | 0 | 3 |
| Oysters, and other shell-fish,..... | 0 | 0 | 5 | 2 | 0 | 0 | 5 |
| Oyster-shells,..... | 0 | 0 | 3 | 1 | 0 | 0 | 3 |
| Passengers,.....each. | 2 | 0 | 0 | 86 | 1 | 0 | 0 |
| Posts, locust or cedar, in boats,.....hundred. | 1 | 2 | 0 | 50 | 0 | 8 | 5 |
| " " " rafts,..... | 2 | 5 | 0 | 1 00 | 1 | 7 | 0 |
| " oak or chestnut, in boats,..... | 1 | 2 | 0 | 50 | 0 | 7 | 5 |
| " " " rafts..... | 2 | 5 | 0 | 1 00 | 1 | 5 | 0 |
| Paving-stones,.....M. lbs. | 0 | 2 | 0 | 4 | 0 | 2 | 0 |
| Peas, green.....bush. | 0 | 0 | 4 | 1½ | 0 | 0 | 4 |
| Ploughs,.....each. | 0 | 1 | 7 | 7 | 0 | 1 | 0 |
| Plaster of Paris,.....ton. | 1 | 0 | 0 | 30 | 0 | 5 | 0 |
| Potatoes,.....bush. | 0 | 0 | 3 | 1 | 0 | 0 | 3 |
| Rails, conveyed in boats,.....hundred. | 0 | 7 | 0 | 30 | 0 | 5 | 0 |
| " " rafts,..... | 1 | 4 | 0 | 60 | 1 | 0 | 0 |
| Rakes,.....doz. | 0 | 1 | 5 | 6¼ | 0 | 1 | 5 |
| Rye,.....bush. | 0 | 0 | 3 | 1 | 0 | 0 | 3 |
| Salt,..... | 0 | 0 | 3 | 1 | 0 | 0 | 3 |
| Shingles, lathing,.....M. | 0 | 5 | 0 | 22 | 0 | 3 | 0 |
| " 18 in. long, in boats,..... | 0 | 5 | 0 | 22 | 0 | 3 | 0 |
| " " " rafts,..... | 1 | 0 | 0 | 43 | 0 | 6 | 0 |
| " 24 in. long, in boats,..... | 0 | 6 | 5 | 28 | 0 | 4 | 0 |
| " " " rafts,..... | 1 | 3 | 0 | 56 | 0 | 8 | 0 |
| " 36 in. long, in boats,..... | 1 | 0 | 0 | 43 | 0 | 5 | 0 |
| " " " rafts,..... | 2 | 0 | 0 | 86 | 1 | 0 | 0 |
| Sheep,.....each. | 0 | 1 | 5 | 6¼ | 0 | 1 | 5 |
| Slate, for roofing,.....M. lbs. | 0 | 4 | 0 | 16 | 0 | 4 | 0 |
| Staves and heading, (bbls.) in boats,.....M. | 0 | 7 | 5 | 33 | 0 | 7 | 5 |
| " " " rafts,..... | 2 | 5 | 0 | 1 00 | 1 | 2 | 5 |
| " " (hhds.) boats,..... | 5 | 0 | 0 | 2 00 | 2 | 5 | 0 |
| " " " rafts,..... | 3 | 2 | 5 | 1 40 | 1 | 6 | 0 |
| Stone, wrought.....M. lbs. | 6 | 5 | 0 | 2 80 | 3 | 2 | 0 |
| " unwrought,..... .....perch. | 1 | 0 | 0 | 10 | 1 | 0 | 0 |
| Timber, in boats,.....100 cubic ft. | 1 | 5 | 0 | 65 | 1 | 0 | 0 |
| " rafts,..... | 3 | 0 | 0 | 1 30 | 2 | 0 | 0 |
| Vegetables, not enumerated,.....bush. | 0 | 0 | 4 | 1½ | 0 | 0 | 4 |
| Vinegar,.....bbl. | 0 | 1 | 5 | 6¼ | 0 | 1 | 5 |
| Wagons, two horse,.....each. | 1 | 7 | 5 | 75 | 0 | 7 | 5 |
| " one horse,..... | 0 | 8 | 6 | 37 | 0 | 8 | 6 |
| Wheat,.....bush. | 0 | 0 | 3 | 1 | 0 | 0 | 3 |
| Wood, hickory or oak,.....cord. | 1 | 0 | 0 | 43 | 1 | 0 | 0 |
| " Pine,..... | 0 | 7 | 5 | 33 | 0 | 7 | 5 |

All other articles, 4 cents per ton, per mile, if carried through; and 1 cent from or to Easton, from or to any point on the canal.

On boats or vessels, regularly employed in transportation, 4 cents per mile, exclusive of cargo, and 4 cents for passing each lock.

Transient vessels, over 30 tons cargo, 4 cents, exclusive of cargo, and 4 cents for each lock. If less than 30 tons, 12½ cents, exclusive of cargo.

Vessels of less than 30 tons, which may have gone outside, and returning through the canal, 12½ cents; each additional ton over 30, ½ a cent.

Coal vessels, with full freight, pay no mileage on vessel, on returning.

Vessels passing the tide-lock at New Brunswick, pay toll on vessel and cargo equal to 1 mile—except ½ of an hour before and after high tide.

# JOURNAL OF BANKING, CURRENCY AND FINANCE.

## NEW YORK STATE FINANCES, AND CORPORATIONS.

We place on record such portions of the new Constitution of the State of New York, adopted by the Convention, which closed its session at Albany on the 9th of October, 1846, as have a bearing upon the public debt of the State, the liabilities of stockholders, corporations, &c. The new Constitution it is well known has received the sanction of a very large majority of the people of the State of New York, and the articles (7) on Finance, and (8) on Corporations, are considered of sufficient importance to republish in the pages of a commercial and financial work, for present and future reference.

### ARTICLE VII.—FINANCE.

Sec. 1. After paying the expenses of collection, superintendence and ordinary repairs, there shall be appropriated and set apart in each fiscal year, out of the revenues of the state canals, commencing on the 1st day of June, 1846, the sum of one million and three hundred thousand dollars, until the 1st day of June, 1855, and from that time the sum of one million and seven hundred thousand dollars in each fiscal year, as a sinking fund, to pay the interest and redeem the principal of that part of the state debt, called the canal debt, as it existed at the time first aforesaid, and including three hundred thousand dollars then to be borrowed, until the same shall be wholly paid; and the principal and income of the said sinking fund shall be sacredly applied to that purpose.

2. After complying with the provisions of the first section of this article, there shall be appropriated and set apart out of the surplus revenues of the state canals, in each fiscal year, commencing on the 1st day of June, 1846, the sum of three hundred and fifty thousand dollars, until the time when a sufficient sum shall have been appropriated and set apart, under the said first section, to pay the interest and extinguish the entire principal of the canal debt; and after that period, then the sum of one million and five hundred thousand dollars in each fiscal year, as a sinking fund, to pay the interest and redeem the principal of that part of the state debt called the general fund debt, including the debt for loans of the state credit to railroad companies which have failed to pay the interest thereon, and also the contingent debt on state stocks loaned to the incorporated companies which have hitherto paid the interest thereon, whenever and as far as any part thereof may become a charge on the treasury or general fund, until the same shall be wholly paid; and the principal and income of the said last mentioned sinking fund shall be sacredly applied to the purpose aforesaid; and if the payment of any part of the said moneys to the said sinking fund shall at any time be deferred, by reason of the priority recognized in the first section of this article, the sum so deferred, with quarterly interest thereon, at the then current rate, shall be paid to the last mentioned sinking fund, as soon as it can be done consistently with the just rights of the creditors holding said canal debt.

3. After paying the said expenses of superintendence and repairs of the canals, and the sum appropriated by the first and second sections of this article, there shall be paid out of the surplus revenues of the canals, to the treasurer of the state, on or before the 30th day of September, in each year, for the use and benefit of the general fund, such sum, not exceeding $200,000, as may be required to defray the necessary expenses of the state; and the remainder of the revenues of the said canals shall, in each fiscal year, be applied, in such manner as the legislature shall direct, to the completion of the Erie canal enlargement, and the Genesee Valley and Black River canals, until the said canals shall be completed.

If at any time after the period of eight years from the adoption of this constitution, the revenues of the state, unappropriated by this article, shall not be sufficient to defray the necessary expenses of the government, without continuing or laying a direct tax, the legislature may, at its discretion, supply the deficiency in whole or in part from the surplus revenues of the canals, after complying with the provisions of the first two sections of this article, for paying the interest and extinguishing the principal of the canal and general fund debt; but the sum thus appropriated from the surplus revenues of the canals shall not exceed annually $359,000, including the sum of $200,000, provided for by this section for the expenses of the government, until the general fund debt shall be extinguished, or until the Erie canal enlargement and Genesee Valley and Black River canals shall be completed; and after that debt shall be paid, or the said canals shall be completed, then the sum of $672,500, or so much thereof as shall be necessary, may be annually appropriated to defray the expenses of the government.

4. The claims of the state against any incorporated company to pay the interest and redeem the principal of the stock of the state loaned or advanced to such company, shall be fairly enforced, and not released or compromised; and the moneys arising from such claims shall be set apart and applied as part of the sinking fund provided in the second section of this article. But the time limited for the fulfilment of any condition of any release or compromise heretofore made or provided for, may be extended by law.

5. If the sinking funds, or either of them provided in this article, shall prove insufficient to enable the state, on the credit of such fund, to procure the means to satisfy the claims of the creditors of the state, as they become payable, the legislature shall, by equitable taxes, so increase the revenues of the said funds as to make them, respectively, sufficient perfectly to preserve the public faith. Every contribution or advance to the canals, or their debt, from any source, other than the direct revenues, shall, with quarterly interest, at the rates then current, be repaid into the treasury, for the use of the state, out of the canal revenues, as soon as it can be done consistently with the just rights of the creditors holding the said canal debt.

6. The legislature shall not sell, lease, or otherwise dispose of any of the canals of the state; but they shall remain the property of the state, and under its management, forever.

7. The legislature shall never sell or dispose of the salt springs belonging to this state. The lands contiguous thereto, and which may be necessary and convenient for the use of the salt springs, may be sold by authority of law and under the direction of the commissioners of the land office, for the purpose of investing the moneys arising therefrom in other lands alike convenient; but by such sale and purchase the aggregate quantity of these lands shall not be diminished.

8. No moneys shall ever be paid out of the treasury of this state, or any of its funds, or any of the funds under its management, except in pursuance of an appropriation by law; nor unless such payment be made within two years next after the passage of such appropriation act; and every such law making a new appropriation, or continuing or reviving an appropriation, shall distinctly specify the sum appropriated, and the object to which it is to be applied; and it shall not be sufficient for such law to refer to any other law to fix such sum.

9. The credit of the state shall not, in any manner, be given or loaned to, or in aid of any individual, association or corporation.

10. The state may, to meet casual deficits or failures in revenues, or for expenses not provided for, contract debts; but such debts, direct and contingent, singly, or in the aggregate, shall not, at any time, exceed one million of dollars; and the moneys arising from the loans creating such debts, shall be applied to the purpose for which they were obtained, or to repay the debt so contracted, and to no other purpose whatever.

11. In addition to the above limited power to contract debts, the state may contract debts to repel invasion, suppress insurrection, or defend the state in war; but the money arising from the contracting of such debts shall be applied to the purpose for which it was raised, or to repay such debts, and to no other purpose whatever.

12. Except the debts specified in the tenth and eleventh sections of this article, no debt shall hereafter be contracted by or on behalf of this state, unless such debt shall be authorized by a law for some single work or object, to be distinctly specified therein, and such law shall impose and provide for the collection of a direct annual tax to pay, and sufficient to pay the interest on such debt as it falls due, and also to pay and discharge the principal of such debt within eighteen years from the time of the contracting thereof.

No such law shall take effect until it shall, at a general election, have been submitted to the people, and have received a majority of all the votes cast for and against it, at such election.

On the final passage of such bill in either House of the legislature, the question shall be taken by ayes and noes, to be duly entered on the journals thereof, and shall be: "Shall this bill pass, and ought the same to receive the sanction of the people?"

The legislature may at any time, after the approval of such law by the people, if no debt shall have been contracted in pursuance thereof, repeal the same; and may at any time, by law, forbid the contracting of any further debt or liability under such law; but the tax imposed by such act, in proportion to the debt and liability which may have been contracted in pursuance of such law, shall remain in force and be irrepealable, and be annually collected until the proceeds thereof shall have made the provision herein before specified, to pay and discharge the interest and principal of such debt and liability.

The money arising from any loan or stock creating such debt or liability, shall be applied to the work or object specified in the act authorizing such debt or liability, or for the re-payment of such debt or liability, and for no other purpose whatever.

No such law shall be submitted to be voted on, within three months after its passage, or

at any general election, when any other law or any bill or any amendment to the constitution, shall be submitted to be voted for or against.

13. Every law which imposes, continues or revives a tax, shall distinctly state the tax, and the object to which it is to be applied, and it shall not be sufficient to refer to any other law to fix such tax or object.

14. On the final passage in either House of the legislature, of every act which imposes, continues or revives a tax, or creates a debt or charge, or makes, continues or revives any appropriation of public or trust-money or property, or releases, discharges or commutes any claim or demand of the state, the question shall be taken by ayes and noes, which shall be duly entered on the journals, and three-fifths of all the members elected to either House, shall, in all such cases, be necessary to constitute a quorum therein.

ARTICLE VIII.—CORPORATIONS.

Sec. 1. Corporations may be formed under general laws; but shall not be created by special act, except for municipal purposes, and in cases where, in the judgment of the legislature, the objects of the corporation cannot be attained under general laws. All general laws and special acts passed pursuant to this section, may be altered from time to time, or repealed.

2. Dues from corporations shall be secured by such individual liability of the corporators and other means as may be prescribed by law.

3. The term corporations, as used in this article, shall be construed to include all associations and joint-stock companies having any of the powers or privileges of corporations not possessed by individuals or partnerships. And all corporations shall have the right to sue, and shall be subject to be sued, in all courts, in like cases as natural persons.

4. The legislature shall have no power to pass any act granting any special charter for banking purposes; but corporations or associations may be formed for such purposes under general laws.

5. The legislature shall have no power to pass any law sanctioning in any manner, directly or indirectly, the suspension of specie payments by any person, association or corporation issuing bank-notes of any description.

6. The legislature shall provide by law for the registry of all bills or notes, issued or put in circulation as money, and shall require ample security for the redemption of the same in specie.

7. The stockholders in every corporation and joint-stock association for banking purposes, issuing bank-notes or any kind of paper credits to circulate as money, after the 1st day of January, 1850, shall be individually responsible to the amount of their respective share or shares of stock in any such corporation or association, for all its debts and liabilities of every kind, contracted after the said 1st day of January, 1850.

8. In case of insolvency of any bank or banking association, the bill-holders thereof shall be entitled to preference in payment, over all other creditors of such bank or association.

9. It shall be the duty of the legislature to provide for the organization of cities and incorporated villages, and especially to restrict their power of taxation, assessment, borrowing money, contracting debts and loaning their credit, so as to prevent abuses in assessments and in contracting debt by such municipal corporations.

## PRICES OF STOCKS AT PHILADELPHIA, IN 1836 AND 1846.

The Philadelphia Ledger publishes the following comparative table, showing the prices of stocks in that city ten years ago, and at the present time. We frequently hear of the mutability of human affairs, and we place this table on record as an illustration of the "mutability" of commercial matters:—

| | Sept., 1836. | Sept., 1846. | | Sept., 1836. | Sept., 1846. |
|---|---|---|---|---|---|
| Lehigh Navigation shares.. | 74¼ | 18 | Northern Liberties..... | 55 | 41 |
| " " loans... | 100 | 48½ | Southwark ..... | 72½ | 60 |
| Schuylkill Navig'n shares... | 162½ | 29½ | Western..... | 59 | 43 |
| " " loans... | 95 | 74 | Man. and Mechanics'..... | 62 | 23 |
| U. S. Bank shares..... | 120½ | 3¼ | Moyamensing..... | 72 | 40 |
| Schuylkill Bank..... | 59½ | 2 | Union Bank, Tennessee.... | 99 | 50 |
| Girard..... | 58¾ | 9½ | Planters' Bank, " .... | 100 | 58 |
| Mechanics'..... | 60 | 20 | " Mississippi. | 118½ | ... |
| Pennsylvania..... | 510 | 251 | Grand Gulf..... | 98 | 4 |
| Farmers' and Mechanics'.. | 66½ | 42½ | Agricultural..... | 118½ | ... |
| Commercial..... | 66 | 50 | Vicksburgh..... | 72 | 5½ |

# MERCANTILE MISCELLANIES.

## THE PROCESS OF UNDERWRITING IN GREAT BRITAIN.

We give below some interesting particulars of the process of underwriting in the United Kingdom, derived from a late number of the "Liverpool Albion."

"To render the process of underwriting (in England) as intelligible as possible, we may suppose a case for the purpose of illustration. Suppose a vessel of the class A 1, registered for seven or ten years, be valued at £20,000 or £30,000, a policy is effected upon her, and the owners or their brokers go among their friends at Lloyd's, and see at what rate she can be insured. If the voyage be a distant one, or the season of the year be considered dangerous, the rate will most materially vary. Thus, at one time, a premium of £1 1*s.* or £2 2*s.* per cent might be taken, and at another time the underwriter would perhaps not be inclined to do business under £3 3*s.* or £4 4*s.* per cent, it not only depending on the class of the ship, but the cargo she is likely to carry, and the port for which she is bound. These are all considerations which the underwriter most carefully weighs in his mind before he takes any part or risk in an adventure of the sort. On a vessel of £20,000 or £30,000 value, the policy of insurance might be divided among a dozen of underwriters, including some at Liverpool and Glasgow; and it very often happens that the Liverpool and Glasgow people will insure their ships at London, and *vice versa*. This will account for the statement occasionally to be seen in the papers that "notwithstanding the vessel was a London trader, the greater part of the loss will fall upon the underwriters of Liverpool and Glasgow." When a vessel continues absent after the expected date of arrival, and no news has been received of her, the premium of insurance will advance considerably, and then the business resolves itself into a mere speculative transaction.

"Some of the members of the room snap at this business, but it does not often prove profitable. The ill-fated President was "done" at a very high premium in the room, and up to the latest moment of hope persons were found willing enough "to take a few thousand pounds of her at a long price." When bad weather has occurred, either on the coast or abroad, the underwriters at Lloyd's make the most anxious investigation of the books and the lists received, to trace, by every possible means, the result of their risks. The remark of "a good book," or "a bad book," among the subscribers, is a sure index to the prospects of the day,—the one being indicative of premiums to be received, the other of losses to be paid. The life of the underwriter (like the stock speculator) is one of vast anxiety; the events of the day often raising his expectations to the highest, or depressing them to the lowest pitch; and years are often spent in the hoped-for acquisition of that which he never obtains. Among the old stagers of the room, there is often strong antipathy expressed against the insurance of certain ships, but we never recollect it being followed out to such an extent as in the case of one vessel. She was a steady trader, named after one of the most venerable members of the room, and it was a most curious coincidence that he invariably refused to "write her" for "a single line." Often he was joked upon the subject, and pressed "to do a little" on his namesake, but he as frequently declined, shaking his head in a doubtful manner. One morning, the subscribers were reading the "double lines," or the losses, and among them was this identical ship, which had gone to pieces, and become a total wreck."

## EMIGRATION FROM GREAT BRITAIN AND IRELAND.

The total number of emigrants in 1845, was 93,501; in 1844, it was 70,686. The emigration of 1845 exceeded that of 1844, by 22,815. The amount of emigration in 1845 exceeded the amount in any one year since 1825, (inclusive,) except 1832 (103,140 emigrants;) 1840 (90,743;) 1841 (118,592;) and 1842 (128,344.) In 1843, the yearly total sunk from the last mentioned enormous sum to 57,212, but has since been steadily increasing again. The increase in 1845 over 1844, is principally in the emigrants to the United States and the British North American colonies. To the former there emigrated, in 1841, 43,660 persons; in 1845, 58,538 persons; the emigrants to the latter amounted in 1844, to 22,926; in 1845, to 31,803. The emigration to the Australian colonies decreased; in 1844, it was 2,229; in 1845, only 830. To the Cape of Good Hope there is an increase from 161 in 1844, to 496 in 1845. Emigration from the United Kingdom to the West Indies has also increased, from 596 in 1844, to 854 in 1845. Of these emigrants, only 5,604 were cabin passengers.

## COMMERCE AND THE OPIUM TRADE AT HONG KONG.

George Davidson, the author of "Trade and Travel in the East," spent twelve months in Hong Kong, and thus speaks of its advantages as a place of trade. The morality of his remarks as to the opium trade, are rather questionable:—

"A decisive proof of the eligibility of Hong Kong as a place of trade, and of its importance in the eyes of the Chinese themselves, is afforded by the immense sums paid by some of them for ground on which to build *Hongs*, where they can deposit their goods with safety, beyond the reach of their grasping mandarins. This advantage to a Chinaman is something so new, and so far beyond anything he ever dreamed of enjoying, that I conceive the benefits likely to accrue from it to Hong Kong to be incalculable.

"Goods stored in Canton or Macao, the property of a Chinaman, were never safe in the event of their owner getting into trouble with the Chinese authorities; and, if the property of foreigners, they could not be insured against fire, the risk arising from the universal carelessness of the Chinese, and the consequent very frequent occurrence of extensive conflagrations, being considered too great by the underwriters. Both these difficulties are completely obviated in Hong Kong, and every substantially built house and warehouse, together with the property in them, were insured against fire, previously to my quitting the island. One Chinaman had in March last, completed buildings for the storage of property collected from the different ports on the coast, on which upwards of $40,000 had been laid out, and what is more, they were already well filled.

"As a convenient and safe *depot* for opium, (a trade, in my opinion, quite as legitimate and honorable as that in brandy, gin, and other spirits,) Hong Kong is admirably situated. The purchaser from the western ports as well as from the northeastern, finds the distance he has to travel moderate, and, on his arrival, has no one to dread, no mandarin daring to show his face on shore. The ships that bring the drug from India here find a safe and commodious harbor, where they can unload their cargoes in open day, without hindrance or molestation, and where they are not driven to the necessity of carrying on their operations in the dark. Were the opium trade actually one of mere smuggling, I would be as ready as any one to condemn it, and to raise my voice against those concerned in it; but when one considers that not a hundredth part of the quantity sold annually is really smuggled—that ninety-nine chests out of every hundred pay a heavy duty (miscalled a bribe,)—that the Chinese government derives from it, indirectly, but not the less certainly, a very considerable revenue—and finally, that large quantities of it are known to be consumed within the walls of the imperial palace at Pekin, I confess I see no reason for the clamorous indignation with which the traffic has of late been assailed by European moralists."

## IMPORT OF CURED PROVISIONS INTO ENGLAND.

Mr. Grogan (Dublin) has obtained a Parliamentary return showing the quantities of cured provisions imported into the United Kingdom from foreign countries for the half year ended the 5th of January, 1846. It appears that the total import of salted beef was 38,201 cwt.; of salted pork, 15,709 cwt.; of hams, 3,006 cwt.; and of bacon, 38 cwt. The largest import was from the United States of America—31,000 cwt. of salted beef, and 5,720 cwt. of salted pork, in the half year. The quantities retained for home consumption, were 1,106 cwt. of salted beef, on which a duty of £300 was paid; 266 cwt. of salted pork, the duty on which was £102; 1,134 cwt. of hams, on which the duty was £761; and 39 cwt. of bacon, at £8 duty. The quantities re-exported from the United Kingdoms as merchandise, were—salted beef, 2,486 cwt.; of salted pork, 2,265 cwt.; and of hams, 468 cwt. The quantities taken for ships were respectively 47,724, 13,246, and 951 cwt. No bacon was taken for ship stores.

## DUTIES ON BOOKS AND ENGRAVINGS IN ENGLAND.

Power is given to Her Majesty, by act of Parliament passed on the 18th ult., to reduce the duties on books, prints, and drawings published in, and imported from, any foreign country. On works originally produced in the United Kingdom, and republished in the country of export, the duty may be reduced by order in council to £2 10s. the cwt.; on the works not originally produced, to 15s. the cwt.; and on prints and drawings (plain or colored,) to ½d. each, or 1½d. the dozen, bound or sewn.

# THE BOOK TRADE.

1.—*Views Afoot: or, Europe seen with Knapsack and Staff.* By J. Bayard Taylor. With a Preface, by N. P. Willis. New York: Wiley & Putnam's Library of American Books.

"This book," says Mr. Willis, "requires no introduction. It tells its own story, and tells it well." The author, a printer's apprentice, left this country with about one hundred dollars in his pocket, advanced by two editors, for twelve letters to be sent from Europe for the United States Gazette and the Saturday Evening Post, and succeeded in earning enough by his pen to defray the expenses of a two years' residence and travel in Europe; travelling in that time, on foot, upwards of three thousand miles, in Germany, Switzerland, Italy, and France, where he visited the principal places of interest, enjoying the grandest scenery of the continent, as well as the marvels of ancient and modern art, and becoming familiar with other languages, other customs, and other institutions. He returned home, says his noble-hearted and appreciating friend, Mr. Willis, "with a large knowledge of the world, of men and manners; with a pure, invigorated, and healthy mind; having seen and accomplished more than most travellers, at a cost of only five hundred dollars, and this sum earned on the road." The book is in the highest degree interesting, not only on account of its graphic descriptions of men and things, and its natural and faithful narrative of the incidents of travel, but as recording the difficulties and struggles of a printer's apprentice achieving so much, with such limited means. It is the most interesting book of the "American" series of "books," of which it forms one, yet published. We hope its sale will be commensurate with its intrinsic excellence, and the high desert of the author.

2.—*A Treatise on Diseases of the Air Passages; comprising an Inquiry into the History, Pathology, Causes, and Treatment of those Affections of the Throat called Bronchitis, Chronic Laryngitis, Clergyman's Sore Throat, etc., etc.* By Horace Green, A. M., M. D., formerly President and Professor of the Theory and Practice of Medicine in Castleton Medical College; Vice-President of the New York Medical and Surgical Society, etc. New York: Wiley & Putnam.

The author of this treatise enjoys the reputation of treating the diseases named in the title-page with a remarkable degree of success, by the introduction of a strong solution of the crystals of nitrate of silver into the cavity of the larynx. The essay embodies a series of observations and facts, with regard to the phenomena of disease, and the effects of remedies upon that disease; which, we are assured by the author, it is in the power of every practical man to verify or disprove. A great number of cases in the practice of Dr. Green are cited in proof of the success of his method of treating these diseases. The work will be read by medical men, and doubtless attract the attention of those suffering from bronchitis, and other disorders of the air passages.

3.—*Dr. Hooper's Physician's Vade Mecum; or, A Manual of the Principles and Practice of Physic. Considerably enlarged and improved, with an Outline of General Pathology and Therapeutics.* By William Augustus Guy, M. B. Contab, &c., author of "Medical Jurisprudence," etc. With Additions, by James Stewart, A. M., M. D., Fellow of the College of Physicians and Surgeons, author of "A Practical Treatise on the Diseases of Children," etc. New York: Harper & Brothers.

This work, as will be seen by the title quoted in full, is designed for the medical practitioner. The many editions of it which have been published in England, are considered by the author as furnishing the best evidence that can exist of its great practical utility. It brings together, in a small compass, and in a form easy of reference, those items of information which the doctor desires to possess, as well when he stands beside the sick-bed, as when he studies an individual case.

4.—*Dealings with the firm of Dombey & Sons, Wholesale, Retail, and for Exportation.* By CHARLES DICKENS. With illustrations by H. K. BROWNE. New York: Wiley & Putnam.

The three first numbers of this serial work give abundant indication of the power of its author in his peculiar department of literature, and thus far it equals, if not surpasses, those early efforts of his genius, which gave him a world-wide fame. As everybody will read it, we commend the edition of Wiley & Putnam's, with their series of "Choice Reading," as the best we have seen.

5.—*Mesmer and Swedenborg; or the Relation of the Developments of Mesmerism to the Doctrines and Disclosures of Swedenborg.* By GEORGE BUSH. New York: John Allen.

The object aimed at in this work, we quote from the learned author's preface, is to elevate the phenomena of Mesmerism to a higher plane than that on which they have been wont to be contemplated. The fundamental ground assumed by Mr. Bush, is, that the most important facts disclosed in the Mesmeric state are of a spiritual nature, and can only receive an adequate solution by being viewed in connection with the state of disembodied spirits and the laws of their intercourse with each other. This able work of Professor Bush covers nearly three hundred duodecimo pages, and it is written in that spirit of honest sincerity and candor, that cannot fail of commanding the respect of the most sceptical. The case of A. J. Davis, whose clairvoyant power, a case altogether *unique* and unprecedented, is fully described in the appendix; the great learning and eminent ability, connected with moral qualities, far above reproach, give an importance to the statements and arguments of Dr. Bush, that few who read will be inclined to slight. We earnestly commend the book to all sects, in the full conviction that it will enlarge the range of thoughts, if it do not secure the assent of the understanding, to the author's facts and speculations.

6.—*Eclectic Moral Philosophy. Prepared for Literary Institutions and General Use.* By Rev. J. R. BOYD, A. M., Principal of Jefferson County Institute, New York, and author of "Elements of Rhetoric and Literary Criticism." New York: Harper & Brothers.

The author of this treatise on moral philosophy lays no claim to what might be denominated an original work, but he furnishes us with one that combines, in a connected form, what he considers the best thoughts of the most gifted moral writers of the present century, not of those only who have written a systematic essay on moral philosophy, but of others. Although the writer goes to the Bible as the best of the sources of information with respect to moral duty, his work cannot be considered theological or sectarian. The morals found in the scriptures are exhibited, while the doctrines deduced from it are left to the province of the theologian. Not only is the theory of morals expounded in a full and explicit manner, but the greater and lesser moralities of life are exhibited in detail, and illustrated by appropriate anecdotes.

7.—*An Exposition of the Book of Proverbs.* By Rev. CHARLES BRIDGES, M. A., Vicar of Old Newton, Suffolk, author of an "Exposition of the CXIXth Psalm," "Christian Ministry," etc. New York: Robert Carter.

The "Proverbs of Solomon" were well adapted to the rudeness and simplicity of the first ages, when books were few and philosophy little understood. The elegance and force of these proverbs are well described by their author, under the figure of "apples of gold in pictures of silver," and as "goads and nails fastened by the master," etc. The volume before us, covering nearly five hundred and fifty octavo pages, is a vigorous, though often far-fetched exposition of each proverb; but in a manner conformable to the views and sentiments of a learned and pious divine of the Church of England. The practical every-day character and tendency of the teaching of this book will commend it alike to the Christian and the moralist. It is a mine of wisdom.

8.—*The Beauties of French History.* By the author of "The Beauties of English History," "American History," etc. New York: Harper & Brothers.

The object of this little volume is to afford, accompanied by historical data, a correct idea of the most remarkable circumstances that have taken place, and the most extraordinary men who have flourished in the kingdom of France, from the earliest period of history to the times in which we live. Embodying the most illustrious characters, and the most instructive events of French history, it cannot fail of interesting the young, for whose use it seems eminently adapted.

9.—*Parental Instruction, or Guide to Wisdom and Virtue; Designed for Young Persons of Either Sex. Selected mainly from the Writings of an Eminent Physician.* New York: Harper & Brothers.

The selections embraced in this little work, chiefly from the posthumous writings of Dr. Percival, convey lessons of truth and virtue, in symbolic language, which is so happily adapted to the design of the compiler, as expressed in the title he has affixed to the volume.

10.—*Works of the Puritan Divines.—Baxter.* New York: Wiley & Putnam.

This is the fourth of a series of volumes reprinted by the American publishers from the English edition, devoted to the works of the most eminent of the old Puritan divines. The present volume contains an elaborate essay on the life and writings of Richard Baxter, and several of his most celebrated religious works, viz: "Making Light of Christ and Salvation," "A Call to the Unconverted to Turn and Live," "The last Work of a Believer," "Of the Shedding Abroad of God's Love in the Heart by the Holy Ghost."

11.—*The Use of the Body in Relation to the Mind.* By George Moore, M. D., Member of the Royal College of Physicians, etc., etc. New York: Harper & Brothers' New Miscellany, Vol. XX.

This is an interesting and valuable work, designed to promote the study of a subject, than which, as there is none more important, so there ought not to be any of greater interest; for the right use of the body involves the whole doctrine of human economy, in regard both to society and to self, not only in relation to the present, but the future mode of existence. The topics are presented as they were felt by the author in the study and practice of his profession, and much of the work consists of moral deductions from physiological facts. It is one of the most valuable works in the series.

12.—*A Memorial of Egypt, the Red Sea, the Wilderness of Sin and Paran, Mount Sinai, Jerusalem, and other Principal Localities of the Holy Land, visited in* 1842; *with Brief Notes of a Route through France, Rome, Naples, Constantinople, and up the Danube.* By the Rev. George Fish, LL. B., Prebendary of Litchfield, and Minister of Christ Chapel, Saint John's Wood, London. New York: Robert Carter.

The religious and classic associations of the countries and places visited by the reverend author of the present volume, will impart an interest to its pages, notwithstanding the many books that have been written by former travellers who have gone over the same ground. This unpretending volume, "a sketch, and nothing more,"—we quote from the author's preface—"just what its title indicates; and primarily written to give my flock some instructive idea of the way in which the interval of my absence from them was spent." The writer's journey occupied about eight months, which seem to have been well improved, judging from the volume before us, which contains nearly five hundred pages, descriptive of the scenes visited, and interspersed with incidents of travel. As a preacher of the gospel, it was natural that his mind should frequently recur to the historical events and characters who figure in the scriptures, and gather from the manners, customs, etc., of the people, fresh evidence of the veracity of the sacred records. The volume will be particularly interesting to the Christian reader; furnishing, as it does, so many illustrations of passages of scripture, that without the light cast upon them by the intelligent traveller, would appear meaningless and obscure.

13.—*Encyclopædia Americana: Supplementary Volume. A Popular Dictionary of Arts, Sciences, Literature, History, Politics, and Biography. Volume XIV.* Edited by HENRY VETHAKE, LL. D., Vice-Provost and Professor of Mathematics in the University of Pennsylvania, Member of the American Philosophical Society, author of "A Treatise on Political Economy," etc. Philadelphia: Lea & Blanchard.

The present volume is supplementary to the Encyclopædia Americana, which was based on the seventh edition of the famous "Conversations-Lexicon." It is nearly fourteen years since the first edition of this work was published in the United States. The supplementary volume, before us, is extended, so that it embraces the improvements introduced into the German work. Professor Vethake, availing himself of almost every recent and reliable source of information, has posted up to the present date the matter contained in the previous volumes of the work. Independent of the improvements derived from the German work, the numerous important events that have occurred, and the facts that have been observed, during the lapse of fourteen years, seem to have been gathered up with care, and faithfully recorded. The biographical department is quite full, especially that relating to the many individuals who have emerged from comparative obscurity during that period. Omissions in the former volumes are also supplied; and, while the present includes all that is recent in the arts, sciences, literature, history, politics, and biography, it seems to complete and render more perfect the entire "Encyclopædia Americana."

14.—*Small Books on Great Subjects.* Edited by a few Well-Wishers to Knowledge. Nos. VI. and XI. Philadelphia: Lea & Blanchard.

We noticed in former numbers of this Magazine the six previous numbers, and expressed our opinion as to their character. Number VI. contains "A Brief View of Greek Philosophy, from the Age of Socrates to the Coming of Christ;" and Number XI., some account of "Christian Sects in the Nineteenth Century." It is rare to meet with such concise, and at the same time such comprehensive views of "useful and entertaining knowledge."

15.—*The Lady's Receipt Book; a Useful Emporium for Large or Small Families.* By Miss LESLIE. *Being a Sequel to her former work on Domestic Cookery; comprising New and Approved Directions for preparing Soups, Fish, Meats, Vegetables, Poultry, Game, Pies, Puddings, Cakes, Confectionary, Sweetmeats, Jellies, etc. Also, a List of Dishes for Breakfast, Dinner, and Supper Tables.* Philadelphia: Carey & Hart.

The author's former work, "Directions for Cookery, in all its Branches," has obtained a wide-spread popularity in this country—indeed, we learn from the booksellers that it is considered *the* book for housewives. It has, at all events, passed through numerous editions, each of which has been enlarged and improved, so that its size could no longer be increased. The present volume is made up entirely of fresh accessions of valuable knowledge on this and other subjects, connected with the domestic improvement of our countrywomen, and forms, altogether, a most desirable addition or "sequel" to the former work, and must be equally acceptable to those for whose benefit it has been prepared.

16.—*An Introduction to the French Language; containing Fables, Select Tales, Remarkable Facts, Amusing Anecdotes, etc. With a Dictionary of all the Words translated into English.* By M. DE FIVAS, member of several literary societies. From the fifth English edition. New York: D. Appleton & Co.

We have in this volume selections in French from a work of acknowledged excellence, which has passed through five additions in England. The selections are from the most popular writers, and apparently well adapted to the wants of every student who is desirous of entering early upon a course of instructing or entertaining reading. There is a dictionary at the end of the volume, in which the meaning of every word contained in the book is given; an excellent arrangement, as it saves the discouraging labor and loss of time occasioned by the transition from a reading-book to a separate dictionary, in the early stages of learning a foreign language.

17.—*Ghost Stories: collected with a Particular View to Counteract the Vulgar Belief in Ghosts and Apparitions.* With Ten Engravings, from Designs of F. O. C. DARLEY. Philadelphia: Carey & Hart.

This volume contains a collection of celebrated ghost stories, that in their time occupied the minds of the ignorant and credulous with fear and wonder. The whole theory of ghosts, however, is exploded; and the object of this volume is to dissipate the inbred horror of supernatural phantoms, which almost all persons derive from nursery tales, or other sources of causeless terror in early life. The examples in this volume, while they amuse the reader, are well calculated to dispel the flimsy phantoms of ghosts.

18.—*A Pictorial History of Greece: Ancient and Modern.* By S. G. GOODRICH, author of Peter Parley's Tales. Philadelphia: Sorin & Ball.

The design of the well-known and popular Peter Parley, in the present compilation, was to give an ample and faithful account of the ancient Greeks, and to present in detail a view of their manners and customs, their modes of thought, speech, and action. Considerable space is devoted to their celebrated men, including their philosophers, poets, historians, and artists. Its pictorial illustrations are numerous and well executed, and it appears to be well adapted for the use of schools and other seminaries of elementary education.

19.—*English Synonymes Classified and Explained; with Practical Exercises, Designed for Schools and Private Tuition.* By G. F. GRAHAM, author of "English, or the Art of Composition," "Helps to English Grammar," etc. Edited, with an Introduction and Illustrated Authorities, by HENRY REED, LL. D., Professor of English Literature in the University of Pennsylvania. New York: D. Appleton & Co.

"The great source of a loose style is the injudicious use of synonymous terms," so says Dr. Blair, in his "Lectures upon the English Language;" a fact that will not be disputed. There can be no manner of doubt as to the value of this book of synonymes in forming the chaste and correct writer. Its study is calculated to produce a thoughtful and accurate use of language, and thus impart, almost unconsciously, not only a critical but a moral habit of mind—the habit of giving utterance to truth in simple, clear, and precise terms—of telling one's thoughts and feelings in words that aptly express them. It is thus that we may escape the manifold mischiefs of words used thoughtlessly and at random, or words used in ignorance and confusion. The snow white paper, clear and elegant type, and handsome and substantial binding of this educational work, features peculiarly belonging to the school-books of the present publishers, is worthy of all praise.

20.—*Alderbrook: A Collection of Fanny Forester's Village Sketches, Poems, etc.* By Miss EMILY CHUBBUCK. 2 vols. 12mo. Boston: William D. Ticknor & Co.

Miss Chubbuck, the writer of the present collection of tales, sketches, and poems, is better known to the readers of our light periodical literature as "Fanny Forester," and will be, hereafter, as the companion of that celebrated missionary, Dr. Judson, whose name she now bears. The volume before us is thus dedicated:—

"To him who is henceforth to be my guide through life, its sunlight and its gloom, these few little flowers, gathered by the wayside before we had met, are half-tremblingly, but most affectionately dedicated. May their perfume be grateful; their fragility be pardoned; and Heaven grant that no unsuspected poison may be found lurking among their leaves! Fanny Forester."

The power of the author over the purer and better sympathies of humanity is irresistible, and the social virtues so agreeably illustrated, will secure for the author a place at every fireside circle that finds its chief pleasure in the cultivation of the domestic affections.

21.—*Beauties of English History.* Edited by JOHN FROST, LL. D., author of "Pictorial History of the United States," etc. New York: Harper & Brothers.

This little volume presents a connected view of some of the most striking points of English history, in a style of studied plainness and symplicity. It will create a taste for history, which, with all its uncertainties, is often stranger than fiction, and far more instructive.

22.—*The Book of Anecdotes; or the Moral of History, Taught by Real Examples.* By JOHN FROST, LL. D., author of the "Book of the Army," and "Book of the Navy." New York: D. Appleton & Co. Philadelphia: G. S. Appleton.

Dr. Frost is quite as industrious and successful as Peter Parley in the production of entertaining and instructive books. The present volume contains more than one hundred anecdotes, drawn from history, each designed to illustrate the beauty of a virtue, and impart a meaning and force to the definition which explains, or the precept which commends that virtue. A single example of benevolence, courage, fortitude, or any of the virtues, recorded on the page of history, has often influenced the entire character of an individual, and led to high and noble aims in life. The volume, at once amusing and instructive, is handsomely printed, and each anecdote appropriately illustrated with neatly engraved cuts.

23.—*The Emigrant.* By Sir FRANCIS B. HEAD, Bart. New York: Harper & Brothers.

There is in this volume an agreeable mixture of the grave and the gay; political history, hedged up by light and graphic sketches; and the incidents of several years' residence in Canada. Governor Head writes with a free pen, and in a manly spirit; and although, as republicans, we cannot sympathize with his aristocratic notions, we can appreciate the gentlemanly bearing, scholarship, and cleverness of the author and the man.

24.—*Amy Herbert; a Tale.* By the author of "Gertrude," "Laneton Parsonage," etc. Edited by the Rev. W. SEWELL, B. D., Fellow of Exeter College. Appleton's Literary Miscellany, No. 21.

This story, we are told by the editor, was written by a lady for the use of a young member of her own family. It is calculated to interest the young under the form of a narrative, and at the same time exhibits a Christian tone and temper, and what the author conceives to be Christran truth, without obtruding either in a manner unsuited to a work of amusement. We are glad that it has been published in a form worthy of preservation, and added to the publisher's Miscellany," which thus far embodies so many excellent and choice works.

25.—*The Family Prayer-Book; or, The Book of Common Prayer, and Administration of the Sacraments, and other Rites and Ceremonies of the Church, according to the use of the Protestant Episcopal Church in the United States of America; accompanied by a General Commentary, Historical, Explanatory, Doctrinal, and Practical.* By THOMAS CHURCH BROWNELL, D. D., LL. D., Bishop of the Protestant Episcopal Church in the State of Connecticut. New York: Stanford & Swords.

This is a large and handsome volume, of nearly eight hundred pages, octavo. Its character is generally understood and appreciated by members of the Episcopal Church in the United States, and it has the cordial recommendations of the bishops and clergy of that communion, without distinction of "*high*" or "*low*." Indeed, these distinctions do not appear to interrupt the *devotional* part of Episcopacy;—besides, Bishop Brownell seems to occupy a sort of neutral ground in the Church; adhering to its principles, and endeavoring to enforce what he conceives to be the doctrines and duties of Christianity as they are understood by the Church of which he is a much respected and esteemed official and member. The work is compiled from the most approved liturgical works, various alterations and additions being made, to adapt it to the liturgy of the Protestant Episcopal Church in the United States.

26.—*My Own Treasury; an Illustrated Gift-Book for Young Persons.* Edited by MARK MERRIWELL. New York: Wiley & Putnam.

This very handsome book has quite an English look; and we more than half suspect it one of the first-fruits of the new tariff. Be that, however, as it may, its one hundred engravings are very cleverly designed and executed, and the tales, sketches, and histories, happily blend whatever is attractive in narrative, and graphic in description. It will prove a most attractive "Christmas-book" for the little folks.

HUNT'S

# MERCHANTS' MAGAZINE.

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BY FREEMAN HUNT, EDITOR AND PROPRIETOR.

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HUNT'S

# MERCHANTS' MAGAZINE.

FEBRUARY, 1847.

## Art. I.—HISTORICAL SKETCH OF NAVIGATION AND NAVAL ARCHITECTURE.

NUMBER IV.—NEW SERIES.

The actual habits of our countrymen attach them to commerce. They will exercise it for themselves. Wars, then, must sometimes be our lot; and all the wise can do, is to make the best preparations we can. For either offence or defence, the sea is the field on which we should meet an European enemy. On that element, it is necessary we should possess power.—JEFFERSON.

HAVING completed the historical sketch of navigation, down to the ratification of the treaty of peace with Great Britain, in 1783, I regret that I am obliged to suspend the execution of the remainder until I can command more time to devote to that interesting subject, which I hope I shall be enabled to do in the course of the next year;—but, as naval architecture has been only partially noticed in the preceding letters, and as it now claims the intense consideration of this and all the other most powerful maritime nations, I have concluded to devote the two last of the present series to that important branch of nautical science. Still, I can only give a very succinct account of its origin and development, with a few suggestions on the expediency of establishing more exact principles for the attainment of such perfection in the form of ships as shall more certainly combine strength and stability with speed and capacity.

It is with great deffidence that I have ventured even to intimate possible improvements in construction; for it may be very justly presumed that such inquiries are not only beyond the domain of a mere private citizen, but exclusively pertain to those intelligent naval officers, architects, and shipbuilders, who, from long experience, must be considered far better qualified to decide whether any beneficial change can be made in the system which now exists.

The form and size of vessels, and the manner of building them, have been as various as the purpose of their construction, and the nations and

ages in which they have been employed; and, if plans or models of them could be collected, they would form a most interesting and instructive exhibition: but, so imperfectly described are those of the most distinguished maritime empires of antiquity, that it is impossible to obtain even sufficient data, from the surviving works of Greek or Roman authors, to form a definite opinion of their dimensions, configuration, or appearance, when in a complete condition for commercial adventure or naval enterprise.

In civil architecture, the means are ample for becoming perfectly acquainted with its proficiency, as a science and an art—so far, at least, as it was applied to public structures; for not only have many of the magnificent edifices which were reared in Egypt, Greece, and Rome, during the memorable epochs when those mighty nations had reached the culmination point of prosperity, affluence, refinement, and power, escaped the ravages of conquest and time, but the treatise of Vitruvius has been transmitted across that broad and deep gulf of oblivion, in which the libraries of entire kingdoms have been overwhelmed. We are, therefore, enabled to fully comprehend the scientific principles on which they were projected, the materials employed, the manner in which the work was executed, and the imposing effect which must have been produced when all the architectural details—sculptures, paintings, and other sumptuous embellishments of the temples, pyramids, obelisks, triumphal arches and columns of Thebes, Tentyra, Athens, Samos, Hæstum, Agrigentum, and the "Eternal City"—were as perfect as genius, taste, science, art, and wealth, could render them; for sufficient portions of the largest and most magnificient have been perpetuated, to enable a modern architect to make accurate plans and elevations of them, in a restored condition; or to imitate an entire edifice, in such a perfect manner, as to rival the original in execution and elegancy. But ships, having been built of such perishable material as wood, not a fragment remains, nor has a work on naval architecture, by any author of antiquity, descended to us; so that even the manner in which the banks of oars were arranged in the fleets of Alexandria, Greece, Carthage, and Rome, is a problem, which has not yet been satisfactorily explained.

The galleys were divided into two classes—the first being called *monoerota*, or those which had single rows of oars; and the other was distinguished by the term *polycrota*, which included such as had three, five, nine, or more tiers of oars. Those commonly used for naval expeditions were of various dimensions, and were designated as *biremes*, *triremes*, *quadriremes*, *quinqueremes*, *euneremes*, and *tessararemes*, according to the number of banks of oars in each.

The various series of rowers were called by different names. The *Thalamitæ* were those who sat lowest; the *Zygitæ* sat in the cross-seats, and the *Thranitæ* in the highest.

The triremes carried two hundred men, of which one hundred and eighty were rowers, and the rest mariners; so that the Athenian fleet of one hundred and eighty triremes, which was commanded by Conon, in the victorious actions with the Spartan admiral, Pisander, must have contained thirty-six thousand men.

The quinqueremes carried four hundred and twenty men, three hundred of whom were rowers; and, as the Roman fleet, at Messina, consisted of three hundred and thirty galleys, and the Carthagenian, at Lelybæum, of three hundred and fifty, most of which were quinqueremes, the former must

have contained one hundred and thirty, and the other one hundred and fifty thousand men. Those vessels, then, were necessarily of a very large size; for, besides their crews, the war equipments and provisions requisite for such an immense number of mariners must have occupied a considerable space.

But there are accounts of ships of still more enormous dimensions. Hiero, king of Syracuse, caused one to be built, under the direction of Archimedes, the herald of mechanical science, which had twenty banks of oars. It was sent, as a present, to the sovereign of Egypt.

The largest vessel on record was constructed by Ptolemy Philopater. It had forty banks of oars. The length was four hundred and twenty-four feet, and the breadth fifty-eight feet. The height of the forecastle, from the water, was sixty feet. The longest oars were fifty-eight feet, and their handles were loaded with lead, to facilitate their motion. The crew consisted of four thousand four hundred men, of which four thousand were rowers. This leviathan of navigation was rather a royal yacht, than a ship of war.

Another ship, which was constructed for the voyages of the king and his court on the Nile, was three hundred and thirty feet long, and forty-five wide.

Pliny states,* that there never had been seen, navigating the seas, a ship more admirable than that which was constructed by order of the Emperor Caius Caligula, for transporting from Egypt the obelisk which was erected in the Circus of Mount Vaticanus, and the four huge blocks of the same kind of stone which formed the base on which that massive and lofty shaft of granite was reared. It brought, besides, one hundred and twenty thousand bushels of lentils. This ship was so long, that it occupied the greater portion of the left side of the harbor of Ostia, at the mouth of the Tiber, where it was sunk by the order of the Emperor Claudius, after three towers had been erected upon it of pozzuolana,† one of which was used as a pharos.

Galleys, with nine banks of oars, were the largest class of ships, which were generally employed in naval warfare.

That those indescribable galleys were very large, is to be inferred from various passages in the historical accounts of the maritime expeditions of the ancients; but the manner of arranging such a number of rowers as were employed, has occasioned much speculation among ingenious artisans, antiquarians, and writers on naval architecture;—still, no clear and satisfactory explanation has been given. On medals, and in a few bassorelevios, their are rude representations of war galleys, in all of which the rowers are placed in lines over each other. On the coin of the Emperor Gordian is a galley, in which two banks of oars are conspicuous; and on Trajan's column, in Rome, there is, among the sculptures which embellish it, a galley, in which three banks of oars are placed obliquely, above each other.

If only four feet are allowed for each tier of oars, the sides of the vessel, above the water-line, even if only carrying nine rows, must have been thirty-six feet. It is, therefore, most probable that there was some mode

* Pliny's Nat. His., Book xvi., ch. 40.

† Volcanic ashes, used for forming concrete or beton, or what is called Roman and hydraulic cement.

of placing the rowers different from that of having distinct decks for each tier; and Meibomius, in his treatise, *De Fabrica Triremium*,* has suggested several, which are, however, more ingenious than conclusive.

For a long period after the revival of navigation, most of the vessels employed in long and dangerous voyages were small and fragile—and some of those which constituted the exploring squadrons of Columbus and Cabot were not decked, while the largest were much inferior to our coasting schooners; but after a commercial intercourse was opened with the American continent, by the Spanish, Portuguese, and English exploration, and with India, by the new route of De Gama, larger vessels were gradually substituted—and when the Venetians and Genoese became involved in war with Turkey, and finally with each other, for maritime supremacy, the navies of all these powers began to assume a far more formidable character, from the increased size of the vessels, and the number and weight of the guns they carried.

France and Spain, however, were the first nations that formed really efficient fleets, so far as relates to superiority of model, size, and construction; and the naval establishments for building and equipping ships, at Brest, Cherbourg, Toulon, Garthagena, and Ferrol, were long superior to those of any other country, and those of France still maintain that preëminence which was acquired during the reign of Louis XIV.

Holland had preceded both England and France in navigation, and the establishment of an imposing naval force; but the ships of war, as well as those in the merchant service, of all the nations which became most distinguished for maritime adventure, were generally clumsy in their form, being deep and broad, compared with their length, and high fore and aft above the water—rude in their construction, and sluggish in their movements, until within a very recent period. In fact, the largest class of the ships of the line seem to have been built to represent lofty castles upon the coast, rather than the majestic and storm-defying cars of Neptune, to bear the thunders of battle in triumph over the deep.

The aspirants for distinction in the art of ship-building have been numerous, but, with a few honorable exceptions, they have utterly failed in their efforts. Confident of success, they zealously labored to produce such a change in the contour of the frame as would effectually obviate its notorious defects, and establish a form by which all the desirable qualities would be obtained, both for the purposes of commerce and war; but, unfortunately, the mode which was generally adopted rendered success impossible, for it was founded on assumptions which were as unphilosophical as they were destitute of the verification of facts.

There was a grave manner of discussing this important subject, which was regarded as recondite by those who were zealous rivals in the inquiry, because it was conducted in a manner which was as indefinite in terms as it was incomprehensible in theory. The talismanic phrases of *dead rise*, *flat floor*, *clean run*, *quick shean*, *lean aft*, *full bows*, *long fore foot*, *bearings*, *rake of stem and stern posts*, and many others, which custom had introduced, seemed to have been invested with apparent significance; but as to the effect of which, in all their possible modes of practical combination, whether for advantage or injury, there were as many opinions as competitors for the prize of excellence.

* That work was published in Amsterdam, towards the close of the seventeenth century.

The prospect of success, under such circumstances, was, therefore, not only distant, but improbable—for the inadequate process by which the required result must be obtained, most commonly consisted in shaping blocks of wood into some imagined form of perfection, for the hull of a ship, but without an attempted application of the laws of geometry, hydraulics or mechanics. It was, in fact, rather a kind of physical guesswork, than a methodical effort to arrive at a correct theory by the only certain method—that of analysis; and not having a single element for enabling them to reach a definite conclusion, either by exact experiment, demonstration, or induction, vessels built on those incongruous and ever-varying plans were often worse, and generally no better, than those which had preceded them, in construction. If, now and then, one out of the many hundred in the merchant or naval service proved to be more manageable, or, as the term is, "*worked well*," was safer in all kinds of weather, or remarkable for sailing, it was the merest accident—and if attempted to be copied, it was invariably a failure, which was shrewdly attributed to the "stepping of the masts," the "improper trim," the "cut of the sails," and many other plausible causes; when, in reality, the whole difficulty arose from the new ship not being in form exactly like that which had been adopted as the model; nor was it possible that it could be, there being no rule, principle, or mode of producing a similitude, except by the eye of the builder—as the actual dimensions, and varying external outlines, were as unmeasurable as the statuary group of the Laocoon, for all the purposes of exact imitation, since none of the longitudinal, transverse, horizontal, or vertical sections or lines, were portions of any geometrical figure, but irregular involutions, which had been developed by whim or chance, and therefore could not be transferred to another form with that precision which was indispensable for success.

The first work in which science was applied to the construction of ships, was Paul Hoste's "*Theorie de la Construction des Vesseaux*," which was published at Lyons, in 1696. Prior to the appearance of that interesting treatise, experience and imperfect observation were the only guides of the ship-builder The torch of geometry had not illumined his path, nor was the theory of mechanics applied to his daily labors. Ships were built by absurd traditionary rules, which, for a long succession of centuries, had been esteemed as infalliable, and no one ventured to question their accuracy or origin.

After a dreary night of darkness, Bernouville, Bouguer and Euler arose, who joined to the highest theoretical attainments clear and definite conceptions of the practical application of analysis to some of the most important elements of naval architecture. In the hands of Euler, in particular, the subject first assumed a regular and systematic form. Since that period, it has been enriched by the labors of Clairbois and Chapman, of Sweden.

The precepts and system of ship-building having been so ingloriously influenced by caprice, prejudice, and chance, the rigid and scrutinizing spirit of geometry calls for a more precise application of its principles to that subject.

France wisely availed herself of the advantages which were thus to be derived, and called to her aid the genius and science of the nation. By prizes, public rewards, and honorable distinctions, the geometricians were invited to consider all the great problems connected with ship-building,

and to transfuse into the mechanical operations of her dock-yards all that the most enlightened theories could teach. It can readily be conceived what advantages must result to an art, when the attention of such a mind as D'Alembert's was directed to it.

After the discovery of the use of steam as a motive power in the propulsion of vessels, and more especially since its recent extended application to packet, mail, merchant, and war ships, it has become a subject of the deepest interest, and numerous experiments have been made, to ascertain in what manner the greatest speed can be acquired, in all kinds of vessels, at any cost—or their capacities enlarged for all the purposes in which they may be employed, without a diminution of velocity, or a proportionate augmentation of expense in construction, sails, rigging, engines, fuel, and crews.

In mail and passenger steamers, speed is very desirable; but to obtain increased velocity with capacity for freight and armament, in merchant and armed ships, in the manner proposed, is of still greater moment; and while the problem involves serious difficulties, it is, nevertheless, confidently believed that it can be solved, if the requisite inquiries and experiments are conducted on purely scientific principles.

A form of the hull, then, which shall combine capacity and stability, with a contour that is the best adapted for being most easily moved through the water, by any power, must be the basis on which all investigations should be founded. It was on that assumption, that inquiries were instituted in the dock-yards of France during the reign of Louis XIV.; and with such success have they been prosecuted ever since, that the various classes of sailing ships, built in that kingdom, have been considered so much superior to those of all other nations, that the navies of Spain, England, Russia, and the United States, have been notoriously improved, so far as they have been adopted as models for construction. Still, a form has not yet been ascertained, which is so perfect as to fulfil all the conditions required; for it must be predicated on principles so correct in scientific theory, and so universal in their application, that they can be infallibly adopted in the construction of every kind of vessel, from a jolly-boat to a ship of the line.

To ascertain the form of a solid body, which would oppose the least resistance in passing through a fluid, experiments were instituted in England, under the direction of the "Society for the Improvement of Naval Architecture," which was established in 1791, in consequence of the deep interest which the Duke of Clarence * took in that subject, as a naval officer, and who was therefore selected as the president.

Greenland Dock was designated, as the most convenient piece of still water, near London, for conducting the experiments, where four hundred feet run and eleven feet depth was obtained. Colonel Beaufoy was appointed to superintend the experiments, and was assisted by James Scott, secretary of the society, and Captain John Leord of the navy. The colonel was aided by his highly accomplished lady in the calculations, and she contributed no inconsiderable share to the progress and success of his labors.

Colonel Beaufoy's attention was first drawn to this interesting subject, when but fifteen years of age, in consequence of hearing it stated, one

* The successor of George IV. to the British throne, under the title of William IV.

evening, at his father's house, by an eminent mathematician, as an axiom generally received by naval officers and mechanics, that "a cone drawn through the water, with its base forward, experienced less resistance from a fluid, than with its apex in front." This paradoxical assumption excited young Beaufoy's curiosity, and before he went to bed, with the assistance of a neighboring turner to prepare him an elongated cone, he ascertained the fallacy of the alleged opinion, by making the experiment in one of the large coolers of his father's brew-house.

In a few years after its organization, the society sunk into decay from the want of funds; but the colonel continued his experiments for ten years, at his own expense, and completed his tables, with appropriate drawings of the apparatus and solids employed, in two manuscript folio volumes.

Simultaneously, but unknown to either party, experiments were prosecuted in Sweden, for the solution of the same questions, under the sanction of the iron-masters of Stockholm, by Lagerhjelm, Forselles, and Kallsterias, at Fahlu mine, from the year 1812 to 1816.

In the year 1819, Assesson Lagerhjelm sent Colonel Beaufoy six copiès of the first volume of the Swedish experiments, which were distributed among the public departments of England; but no notice was taken by any of them of the work, beyond a formal acknowledgment of its receipt. The colonel then attempted to procure a translation, at his own expense; but owing to the want of mathematical knowledge on the part of the translator, their version was as unintelligible to an Englishman as the originable language. Thus circumstanced, he saw just enough to excite, without gratifying his curiosity, until fortunately Lagerhjelm visited England in 1825, when the colonel was enabled to get a glimpse of the results of the labors of his Swedish coadjutors. Soon after the return of Lagerhjelm, he sent over copies of his second volume of experiments; but owing to the same cause, they were equally as unavailing as the former.

Colonel Beaufoy died in 1827, and having bequeathed his manuscripts to his eldest son, he determined to procure correct translations of Lagerhjelm's work, and fulfil his father's wishes, by publishing the whole Swedish and English experiments together. For accomplishing that object, he employed a young clergyman, by the name of Elijah Smith, to undertake the task of translator and editor.

In the spring of 1832, Mr. Smith had succeeded in translating the first volume of the Swedish work, when he proceeded to Stockholm to lay the translation before the learned author, who, being an excellent English scholar, corrected it; and then stated the object of Mr. Smith's voyage to the Society of Iron-Masters, who most liberally offered the use of the copper-plates belonging to the original work, to facilitate, as well as to diminish the expense of the publication of the translation.

In the summer, Mr. Smith had completed the translation of the second volume of Swedish experiments, and was to have proceeded in the translation of the "*Tentamen Theoriæ Resistentiæ Fluidorum Constituendæ*," written by Lagerhjelm. The work was to have consisted of three volumes; the first containing Colonel Beaufoy's experiments upon "the resistance of solids moving through fluids;" the second, the translation of the first and second volumes of the Swedish hydraulic experiments, and also the work on the resistance of fluids, by Lagerhjelm; and the third, Colonel Beaufoy's miscellaneous papers, which were numerous, on as-

tronomy, naval architecture, air, magnetism, meteorology, the tides, trigonometry, sound, and other scientific subjects.

The united experiments of the English and Swedish philosophers cost over $240,000.

In the midst of his labors for completing the work, Mr. Smith was appointed to the chaplaincy of the Russian factory at Archangel; and the task of editing it devolved on the liberal and energetic son of the colonel, who seemed to have inherited, and united, with the most profound filial respect, the generous and enlightened spirit of his learned and enterprising father.

After Mr. Smith left England, the son found that many errors had been committed, in the original manuscripts, which rendered it necessary that a minute and careful examination should be made of the whole work; the first volume, therefore, was not published until 1834.

In the preface, the son remarks, that "as Colonel Beaufoy's scientific labors were given to the public, so likewise are these volumes intended for gratuitous distribution."*

A more appropriate and magnificent monument could not have been reared, by filial gratitude and affection, than this superb work; of which, fifteen hundred and fifty copies have been published, at an expense of nearly $20,000. NEARCHUS.

## Art. II.—TRADE AND COMMERCE OF NORWAY.

In a previous number of the Merchants' Magazine,† we published an elaborate account of the trade, commerce, and resources of Sweden, derived chiefly from the valuable parliamentary papers of John Macgregor, Esq., one of the Joint Secretaries of the British Board of Trade. The following statement, respecting the trade and navigation of Norway, read before the Statistical Section of the British Association at Cambridge, in June, 1845, by Richard Valpy, Esq., has been collected chiefly from an interesting return made to the English government by J. R. Crowe, Esq., Her Britannic Majesty's Consul-General at Hammerfest; and, as the subject was considered a desirable one to bring before the association referred to, Mr. Valpy, by permission, abstracted from the return such particulars as appeared the most likely to render the paper acceptable, in a commercial point of view.

The exports and imports are separately considered, and our attention is, in the first place, directed to the export trade of Norway, which chiefly consists of the produce of her forests, fisheries, and mines. The timber trade is principally carried on in the southern provinces of Agershuus and Christiansand, and to a less extent in the province of Drontheim. Deals, principally in twelve-feet lengths, balks, round and square, and timber of various dimensions for building materials, constitute the articles of the trade. The most extensive forests are in the interior, and chiefly on property belonging to peasants. No regulations for the management of the

* I was indebted to the sons of the late Doctor Bowditch, for an opportunity of examining the work published by Colonel Beaufoy's son, who had presented it to their illustrious father.

† See Merchants' Magazine for September, 1844, Vol. XI., p. 208–216.

forests exist in Norway; each proprietor cuts as much wood as he thinks proper. While the country was under the Danish dynasty, various attempts were made by that government to introduce their own system of control; and for a short period a Forest or Wood Department was established, with officers to regulate the felling—but it was soon abolished, and the quantity and quality to be felled was left to the discretion of the proprietors. Much has been said and written about the decrease of the woods, but it is now generally admitted, by those who are conversant with the subject, that the reproduction is as rapid as the consumption, and that no material decline is to be anticipated. Autumn and winter are the periods of the year when the timber is felled; and, as soon as the snow is sufficiently deep to admit of its being transported, it is conveyed to the banks of the nearest river, to await the freshets in the spring, which carry it either to the saw-mills or sea-coast, as may be required. The timber is invariable received on the banks of the river by the timber merchants, who mark what they purchase: it then remains on the banks, on account and at the risk of the purchasers, until it is transported by the freshets to the place of destination. As soon as the rivers begin to increase, proper people are sent up by the purchaser to clear the banks of the timber, and to follow its descent in order to release any that may chance to lodge on the way. Whenever lakes intervene, as is often the case, the timber is then collected into rafts, and conducted across to the opposite outlet. It is there cast adrift, and again carried along by the stream, until it reaches the place where it is to be formed into shapes, suitable to the market for which it may be intended. To Holland, where the Norway timber is chiefly in demand for piles, it is sent round. For England, on the contrary, where the demand is exclusively for building materials, with the exception of the timber required in Cornwall for the use of the mines, the balks are always squared. The principal markets for deals are England, Ireland, France, and Holland; and quantities of an inferior description are sent to Denmark.

For some years, this branch of trade has been gradually changing its course. Formerly, England was looked upon as the chief and most certain market; and, in return, England retained almost the exclusive trade in manufactures, as but few manufactured goods found their way into the country from other places. With France but little intercourse existed, and carcely any with the German States.

From 1809, however, the period when the English protective system in avor of Canada came into operation, the decline of this trade with England ommenced. Owing to the dimensions of the Norwegian timber and deals, he change pressed more heavily on Norway than on any of the neighboring States, and such property actually fell in value upwards of 50 per cent. If not entirely and immediately thrown out of the market, the Norwegian dealer labored under so many disadvantages that ultimately he was driven to seek more favorable outlets for his produce, and these he found in France, where the custom of substituting boarded for stone or brick floors was gradually gaining ground.

As the exports to England fell off, the use of British manufactures decreased in a similar proportion. Hamburg and the German States became new markets for this description of Norwegian produce, and German manufactures superseded, in a great measure, those of England.

The following table exhibits the quantities of timber and deals exported to various countries in each year, from 1835 to 1841:—

| Years. | Great Britain. | France. | Holland. | Belgium. | Denmark. | Hanov'r. | Other countries. | Total. |
|---|---|---|---|---|---|---|---|---|
| 1835..loads | 135,987 | 156,842 | 160,097 | 5,317 | 81,733 | 16,012 | 4,441 | 560,430 |
| 1836 ..... | 140,783 | ..... | ..... | ..... | ..... | ..... | ..... | 582,047 |
| 1837 ..... | 141,567 | ..... | ..... | ..... | ..... | ..... | ..... | 571,105 |
| 1838 ..... | 160,357 | 179,885 | 162,168 | 9,150 | 69,375 | 18,522 | 4,459 | 603,916 |
| 1839 ..... | 151,250 | ..... | ..... | ..... | ..... | ..... | ..... | 680,517 |
| 1840 ..... | 152,350 | ..... | ..... | ..... | ..... | ..... | ..... | 666,497 |
| 1841 ..... | 159,602 | 187,497 | 177,135 | 5,480 | 109,400 | 21,622 | 6,132 | 666,868 |

NOTE.—The quantities exported to the several countries in 1836, 1837, 1839, and 1840, are not specified, with the exception of England.

Thus, in 1835, Holland took 28.56 per cent; France, 27.99; England, 24.27; Denmark, 14.59; and other countries 4.59 per cent of the total quantities exported. In 1838, France took 29.79 per cent; Holland, 26.85; England 26.55; Denmark, 11.49; and other countries 5.32 per cent;—and in 1841, France took 28.11 per cent; Holland, 26.55; England, 23.93; Denmark, 16.44; and other countries 4.97 per cent of the total exports of timber.

The annual average quantities of timber exported in the seven years from 1835 to 1841, were 618,769 loads of 50 cubic feet; which, if we include fire-wood, and articles of minor importance, such as hoops, &c., may be estimated to be worth, at the place of shipment, rather more than two millions of sp. d., or £435,000.

The fishing trade is next in importance to the timber trade, and that branch of the industry of Norway forms the chief occupation of the inhabitants of the towns on the west coast, from the Haze to the frontiers at the entrance of the White Sea; Bergen, Drontheim, Christiansand, Tromsoe, and Hammerfest, being the principal of such towns.

The exports consist of stock-fish, round and split; clip-fish, or baccalau; salted cod and halibut, in barrels and in bulk; cod-roes, salted; herrings, salted or pickled; liver and shark oil, and live lobsters. The stock-fish is prepared by the fisherman in the neighborhood of the fishing-grounds, merely by drying in the open air, without salt. It is then conveyed by him to the place of shipment, and sold to the merchant. The fish-roes are prepared in the same manner by the fisherman; but the preparation of the clip-fish, (which is similar to that cured at Newfoundland,) and the pickling of the herrings, is solely at the risk of the merchant, who makes his purchases as the fish are landed, employing his own people in the ulterior preparations. The markets for the stock-fish are the Italian States, Spain, Portugal, France, and Belgium. Clip-fish are chiefly sent to Bilboa; the liver-oil to the Hanse Towns, Holland, and Belgium; the cod-roes exclusively to France, where they are used as ground bait, chiefly in the bay of Biscay. Sweden, Russia, and the Prussian States, take the herrings in a pickled or salted state, in barrels; and Denmark is also a market for them in smaller quantities. The stock-fish and clip-fish form the chief proportion of the fish trade; the herrings are second in importance; the raw and salted cod and halibut next; and lastly, the live lobsters.

The progress of the fisheries, since the year 1814, is shown in the next table, where the annual average quantities of fish exported are given in quinquennial periods, from 1815 to 1841:—

| Periods. | Dried stock-fish. *Tons.* | Clip-fish, or baccalau. *Tons.* | Herrings, salted. *Barrels.* | Cod-roes. *Barrels.* | Cod liver and shark oils. *Barrels.* | Live lobsters. *No.* |
|---|---|---|---|---|---|---|
| 1815 to 1819... | 9,767 | 1,836 | *..... | 8,545 | 19,193 | *..... |
| 1820 1824... | 12,851 | 3,805 | *..... | not known | 27,265 | *..... |
| 1825 1829... | 19,512 | 7,454 | *..... | 22,146 | 40,458 | *..... |
| 1830 1834... | 20,176 | 8,029 | *..... | 21,148 | 25,719 | *..... |
| 1835 1839... | 18,959 | 12,337 | 467,823 | 22,484 | 37,063 | 681,009 |
| 1840 1841... | 14,196 | 11,285 | 608,086 | 20,217 | 41,715 | 552,272 |

In addition to the exports here specified, raw fish are exported to some extent, but in what quantities cannot be ascertained.

Although considerable fluctuations appear in the quantities of fish exported at the different periods specified in the above table, which may, in a great measure, be attributed to the varying nature of the fishing trade, a growing increase has taken place since the year 1814.

The average of the five years from 1815 to 1819, in comparison with the average of the two years 1840 and 1841, exhibits the following results relating to the latter average:—

| | |
|---|---|
| Dried stock-fish | + 45 per cent. |
| Clip-fish, or baccalau | +514 " |
| Herrings, salted, (1840–41, with 1835–39,) | + 30 " |
| Cod-roes | +147 " |
| Cod-liver, and shark oils | +117 " |
| Live lobsters, (1835–39, with 1840–41,) | — 28 " |

and in comparing the average of the fifteen years from 1815 to 1829 with that of the twelve years from 1830 to 1831, the results are as follows, in regard to the latter average:—

| | |
|---|---|
| Dried stock-fish | + 27 per cent |
| Clip fish, or baccalau | +142 " |
| Herrings, salted, (1835–39, with 1840–41,) | + 30 " |
| Cod roes, (1815–19 and 1825–29, with 1830 to 1841,) | + 39 " |
| Cod-liver, and shark oils | + 20 " |
| Live lobsters, (1835–39, with 1840–41,) | — 28 " |

So that all branches of the fisheries exhibit a very considerable progress since the year 1814, with the exception of lobsters, which have materially decreased in the last of the two periods for which we have figures.

The cod fisheries is carried on, with little variation, along the whole coast from Bergen to the White Sea; but the chief seat of it is near the Loffoden Islands, in the neighborhood of the much, but undeservedly, dreaded Maëlstroom; and in the months of February and March upwards of 20,000 men are occasionally engaged in this fishery, which, on the coast of Finmark, also gives employment to from 12,000 to 15,000 men during the summer, and attracts from 300 to 400 Russian vessels annually to its coast. It is to be observed that the cod-liver does not always bear the same relative proportion to the fish. There is a very striking difference occasionally in the quantity of oil the liver yields; for six hundred livers may be required one year to make a barrel of oil, when two hundred are sufficient at another period.

The most important fishery is the herring; and, although this is more fluctuating than any other branch of the fishing trade, of late it has been successful for a series of years. Like the cod, the herring fishery is car-

* Not specified for these periods.

ried on at two periods of the year, in summer and winter. The chief locality of the latter is along the coast from Macegal to Bergen, and of the former from Drontheim to Hammerfest. At one time, the winter herrings had abandoned the Norwegian coast; but, since 1808, they have been regular in their annual visit.

The lobster fishery is now scarcely of sufficient importance to merit a separate notice. For the last three years, since 1841, the annual average exports have not much exceeded 500,000; and, as the consumption in the country has not increased, it is evident that this branch of the fisheries is on the decline. It is pursued along the coast from the Swedish frontiers to Christiansand, and the produce is almost exclusively reserved for the London market; lobster smacks regularly running between the Norway coast and London to receive them.

For the last seven years, since 1837, the annual average quantities of smoked salmon exported have only been 5,455 lbs.; and of this, not above 200 lbs. have been sent annually to England, the chief market being Denmark.

In Part XII., p. 112, of Mr. Macgregor's Commercial Tariff, it is stated that for several years salmon formed an article of export, but of late years the catch has not exceeded the demand for home consumption. The decrease in this valuable article has been attributed to the swarms of sharks that have, of late years, retained possession of the banks lying off the coasts. This fact was only accidentally discovered in 1841, by the circumstance of two small vessels being fitted out as an experiment to try the bank fishery for cod, which had not been previously attempted; when, instead of finding the object they were in search of, these voracious animals were met with. In 1842, eight vessels were fitted out from Hammerfest, expressly for the purpose of shark fishing, and no less than 20,000 were taken, without any apparent diminution of their number. The shark oil produced was about 1,000 barrels. The total value of these fisheries is estimated at more than 3,000,000 specie dollars, or £653,000, annually.

The metal trade is of a limited nature, although full seven-eighths of the produce of the copper and cobalt mines is exported: the latter in the shape of smalts and oxide of cobalt; the former in cake, sheet, and rosette copper. Equally as much iron, in various shapes, is imported into the country as is exported. Many of the iron mines cannot be worked to advantage beyond what the local consumption may call for.

The following tables show the quantity of metals, and minerals of metals, exported in each of the years 1835 and 1841, and the annual average thereof during the seven years from 1835 to 1841:—

TABLE I.

| Years. | Chrome iron. lbs. avs. | Chr. salt. lbs. | Cobalt ores. lbs. | Cob. smalts. lbs. | Cob. oxide. lbs. |
|---|---|---|---|---|---|
| 1835..... | ..... | 2,520 | ..... | 88,480* | 255,920 |
| 1838..... ..... | 505,120 | .... | ..... | ..... | ..... |
| 1841..... | 884,389 | 154,378 | 38,660 | 123,056 | 197,924 |
| Av'ge 1835 to '41, (38 to 40) | 873,727 | 60,189 | ..... | 1,016,715 | 259,841 |
| Per centage proport'ns of the average compared with 1835.... | +73 p.c. | +2,250 p.c. | ..... | +1,050 p.c. | +1½ p.c. |

* The quantities of cobalt smalts exported in 1835 and 1841 only average about one-tenth of the same for each of the intermediate years.

TABLE II.

| Years. | COPPER. Old. lbs. | Sheet. lbs. | In blocks. lbs. | Ore. lbs. | IRON. Wrought. tons. | Cast. tons. |
|---|---|---|---|---|---|---|
| 1835..... | .... | 5,280 | 1,044,120 | 1,534 | 2,155 | 206 |
| 1841..... | 4,850 | 75,379 | 1,233,931 | .... | 2,184 | 105 |
| Av'ge 1835 to '41. | .... | 44,334 | 1,189,784 | 1,272 | 2,410 | 126 |
| Pr. centage prop. of the average compared with '35.. | .... | +740 p. c. | +14 p. c. | —21 p. c. | +12 p. c. | +63 p. c. |

The results here set forth plainly prove that the exports of the mineral resources of Norway have been, with but few exceptions, materially augmented of late years. Of the total quantities exported in the year 1841, the chief proportion was sent to Great Britain. The total value of metals produced in Norway, including the produce of the Kongsberg silver mines, which amounts to full one-fifth of the whole, is estimated at about 1,000,000 specie dollars, or £217,500.

We will now briefly notice the fur trade, although it may be looked upon more in the light of a transit trade, than as part of the national industry. The production of the country has dwindled down to the catch of a few thousand fox-skins, a few hundred bear, wolf, otter, and seal-skins, with some of the smaller animals, annually. These are all sent to Finmark for barter with the Russians, with whom a lively traffic in these article is carried on; chiefly, however, with otter and fox-skins, purchased in London at the sales of the Hudson's Bay Company. From London the skins are first sent to Hamburgh, where they are purchased by the Norwegian trader, who ships them to Finmark, whence the greater part of the otter and fox-skins, which form nineteen-twentieths of the fur trade, are conveyed to Moscow, and there sold to the caravan traders. The skins are ultimately taken to Këachta, to be bartered with the Chinese for tea. The value of these furs, including others of minor importance, does not exceed 100,000 specie dollars annually, or £21,700.

The value of the total exports may therefore be estimated as follows:—

| | | | |
|---|---|---|---|
| Timber.....about | 2,000,000 | specie dollars, or | £435,000 |
| Produce of the fisheries..... | 3,000,000 | " | 653,000 |
| " mines..... | 1,000,000 | " | 217,500 |
| Fur ..... | 100,000 | " | 21,700 |
| | 6,100,000 | | 1,327,200 |
| Freight by Norwegian vessels.... | 1,500,000 | " | 326,000 |
| Total..... | 7,600,000 | " | £1,653,200 |

The value of the freights is added to the estimated value of the exports, as the great bulk of the articles exported are conveyed by Norwegian shipping; consequently, the advantage to that extent remains solely with the native trader and ship-owner. From the official returns, it has been estimated that the gross amount of freights earned by the transport of native produce is fully equal to 1,660,000 specie dollars, or £362,200.

We will now proceed to consider the import trade of Norway, and it will be seen that the principal articles imported are salt, grain, colonial produce, manufactures, tea, sugar, brandies, wines, provisions, hemp, flax, cotton, wool, glass, and earthen-ware.

Salt is received as return cargoes from Spain, Portugal, France, and Sicily, and occasionally from Liverpool. Grain comes from Denmark, Prussia, Russia, and Sweden.

Colonial produce is sent from Hamburgh, Altona, Holland, France, Denmark, and Great Britain.

Provisions are imported from Denmark, Russia, Hanover, and Holland; and raw cotton, cotton twist, manufactured goods, glass, serge, stuffs, and earthen ware, are supplied by Hamburg, Altona, and Great Britain.

The following short abstract from Mr. Growe's tables of the articles imported into Norway from the several countries, may perhaps be some guide to the extent and nature of the different branches of the Norwegian import trade.

The trade of Denmark with Norway was stripped of its magnitude and importance when the two coutries were separated by the Congress of Vienna, and Denmark was consequently deprived of many commercial advantages which she had formerly enjoyed in her relations with Norway.

The trade in grain, provisions, and colonial produce, was exclusively in the hands of the Danes; and the merchants of Copenhagen were in fact the bankers of Norway, and as such controlled nearly the whole of her commerce—not only that which related to Denmark, but also the trade with the rest of Europe. The Exchange at Copenhagen was the mart where most of the commercial affairs of Norway were arranged.

The simple interchange of their superfluous produce now forms the trade between the two countries, but it is yet of an extent to be of importance to Denmark.

Instead of inserting in this paper the entire tables of the import trade with the several countries, we shall only abstract the quantities of the most important articles.

The imports from Denmark, in each of the years 1835, 1838, and 1841 appear in the next table.

By this table, it will be seen that the trade of Denmark, in these periods, has, for the most parts, suffered a gradual decline. Grain, the demand for which fluctuates, of course, with Norwegian harvests and provisions, forms the most important features of the trade, and appears to be likewise the most prosperous.

According to the most careful official estimate, the imports are valued at rather more than 1,500,000 specie dollars, or £326,000.

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Coffee.....lbs. | 97,630 | 77,418 | 64,706 |
| Cordage..... | 19,082 | 15,474 | 18,273 |
| Flax..... ..... | 20,813 | 8,786 | 7,273 |
| Hemp ..... | 26,260 | 4,340 | 1.190 |
| Grain—Barley .....qrs. | 191,387 | 230,272 | 217,501 |
| Wheat and flour..... | 18,049 | 10,437 | 7,453 |
| Rye ..... | 98,994 | 67,241 | 85,171 |
| Malt..... | 13,597 | 13,869 | 16,362 |
| Leather .....lbs. | 285,822 | 97,230 | 111,903 |
| Linens..... | 91,636 | 87,947 | 82 646 |
| Provisions, viz:—Cheese..... | 244,913 | 316,457 | 233,929 |
| Butter..... | 932,561 | 1,465,949 | 1,918.511 |
| Pork..... | 410,126 | 528,546 | 639.702 |
| Beef..... | 358,262 | 391,494 | 358,138 |
| Tallow..... | 64,582 | 62 120 | 87,108 |
| Wool..... | ..... | 71,434 | 139,623 |
| Woollens..... | 77,929 | 37,633 | 41,702 |

In the same ratio as the intercourse with Denmark has declined, has the trade with Sweden increased, and a lively intercourse by sea and land has sprung up.

The quantities of the principal articles imported by sea from Sweden, in each of the years 1835, '38, and '41, are given in the following table:—

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Alum.....lbs. | 30,961 | 8,135 | 39,661 |
| Bricks.....No. | 381,787 | 458,629 | 788,459 |
| Iron and steel.....tons | 322 | 1,049 | 717 |
| Leather.....lbs. | 76,761 | 5,965 | 629 |
| Paper..... | 14,228 | 45,430 | 47,669 |
| Staves .....sp. d. | 59,840 | 75,894 | 95,550 |
| Tobacco.....lbs. | 157,257 | 105,435 | 88,050 |
| Tar..... ...bbls. | 2,761 | 3,134 | 4,706 |
| Oats.....qrs. | 5,241 | 76 | 9,348 |
| Butter ..... .....lbs. | 80,675 | 116,776 | 117,905 |
| Linens..... | 95,907 | 105,516 | 93,036 |
| Woollens..... | 11,453 | 16,233 | 12,280 |

No particular results are to be deduced from this statement, and it affords but an imperfect idea of the commercial intercourse that exists between Sweden and Norway, as quantities of manufactured and other goods find their way by land, and of which no returns can be obtained.

The value of the imports that pass through the customs does not exceed 1,000,000 specie dollars, or £217,500.

The trade between Norway and Russia is of a two-fold character: the first, with the Baltic, is simple, and similar to that carried on between Norway and Prussia; the second, with the northern provinces of Norway, the White Sea, and Finmark, is of a more complicated and peculiar character. These places are mutually dependent on each other for the sale of the superfluous produce of the fisheries, and for the most important articles of food. It is also of great political importance to Russia, and peculiar privileges and immunities are granted by that power to that particular trade; and, by virtue of treaties with Sweden and Norway, Russia has secured to herself exclusive immunities, not enjoyed by other nations.

No correct return of the extent of the trade with Russia can be given, as the Russians are not bound to unload at the established ports, like other foreigners. The following figures are taken from a table compiled from official returns of imports, but it may be safely assumed that not one-half of the Russian produce imported appears in these returns:—

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Candles, tallow.....lbs. | 40,230 | 23,756 | 48,142 |
| Feathers..... | 59,490 | 15,777 | 61,177 |
| Flax-seed .....bbls. | 905 | 3,169 | 1,130 |
| Rye and rye meal .....qrs. | 17,860 | 66,665 | 19,014 |
| Hemp.....lbs. | 2,606,520 | 2,037,719 | 3,024 017 |
| Hides..... | 137,151 | 56,047 | 181,081 |
| Linen..... | 487,161 | 269,049 | 440,789 |
| Oakum..... | 24,160 | 8,398 | 46,142 |
| Oil, cod and liver.....qts. | 15,488 | 32,704 | 62,268 |
| Tallow .....lbs. | 3,678 | 1,556 | 35,081 |
| Tar.....bbls. | 213 | 312 | 109 |
| Twine.....lbs. | 1,280 | 320 | 7,520 |
| Rope ..... | 155,784 | 112,829 | 253,434 |

As it has been before remarked, these figures are, in all probability, far

from exhibiting the extent of the actual imports from Russia. They are, however, given here as some guide to the nature of the transactions.

The trade between Norway and Prussia is confined to a few articles of mutual necessity. The following were the principal imports in each of the years 1835, '38, and '41 :—

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Flax.....lbs. | 10,531 | 6,520 | 18,384 |
| Barley.....qrs. | 11,488 | 46,440 | 9,195 |
| Malt..... | 2,411 | 7,920 | 4,950 |
| Rye..... | 36,946 | 98,340 | 89.572 |
| Hemp.....lbs. | 17,193 | 1,856 | 17,369 |
| Oil—hemp, &c.....qts. | ..... | 19,184 | 28,692 |
| Provisions.....lbs. | 2,427 | 28,510 | 25,891 |
| Soap..... | 6,780 | 7,965 | 25,826 |

A more extensive import trade is carried on by Norway with Altona, Hamburgh, and the German States, than with any other country. No less than 150 articles are specified in the table given by Mr. Consul Crowe; and of the greater part of these, large quantities were imported. The following table is a short abstract of the most prominent imports, in 1835, '38, and '41 :—

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Almonds.....lbs. | 86,342 | 47,964 | 39.086 |
| Alum..... | 17,865 | 9,849 | 13,121 |
| Anniseed, &c..... | 126,976 | 110,782 | 84,744 |
| Bark, medical..... | 11,258 | 11.572 | 12,899 |
| Brimstone..... | 19,429 | 26,956 | 20,189 |
| Bricks.....No. | 430,498 | 398,479 | 888.576 |
| Cotton wool.....lbs. | 35,962 | 50,332 | 57,348 |
| twist..... | 57,392 | 96,977 | 120,865 |
| manufactures..... | 214,562 | 210.513 | 394,103 |
| Coffee..... | 1,694,229 | 2,242,387 | 3,609,812 |
| Dye-woods..... | 492.088 | 215,313 | 257,299 |
| Fruit, dried..... | 292.503 | 355,049 | 359,791 |
| Earthen-ware..... | 37,112 | 22,081 | 20,935 |
| Furs.....skins | 21,047 | 26,923 | 35,817 |
| Glass.....lbs. | 63,929 | 115,771 | 127,201 |
| Gums..... | 15,570 | 10,494 | 12,973 |
| Barley.....qrs. | 9,653 | 8,827 | 2,452 |
| Rye..... | 10,875 | 7,209 | 6,082 |
| Hides.....lbs. | 56,104 | 128,698 | 197,558 |
| Hops..... | 80,795 | 105.287 | 93,123 |
| Copperas..... | 42,297 | 39,715 | 42,844 |
| Indigo..... | 10,798 | 9.467 | 17.229 |
| Iron manufactures..... | 92,569 | 95,990 | 118,697 |
| Linens..... | 147,021 | 149,074 | 214,804 |
| Molasses..... | 334,008 | 514,320 | 493,915 |
| Paints and colors..... | 67,288 | 88,091 | 102,162 |
| Paper..... | 37,156 | 139,894 | 34,633 |
| Potash..... | 12,703 | 18,014 | 16,027 |
| Rosin..... | 24,759 | 33,085 | 39,469 |
| Salt.....tons | 110 | 115 | 100 |
| Saltpetre.....lbs. | 12,101 | 26,379 | 25,459 |
| Silks..... | 8,261 | 10,457 | 10,969 |
| Soap..... | 120,364 | 100.191 | 319,949 |
| Spices..... | 54,146 | 69,323 | 65,801 |
| Starch..... | 22,954 | 29,415 | 36,120 |
| Sago..... | 28,187 | 32,993 | 36,048 |
| Sugar, raw..... | 1,969,390 | 1,574,203 | 2,027,894 |
| refined..... | ..... | 1,307,142 | 1.561,882 |

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Tea.....lbs. | 54,354 | 55,116 | 49,025 |
| Tobacco..... | 1,217,638 | 1,075,699 | 1,709,551 |
| Rice..... | 287,106 | 331,494 | 374,075 |
| Wine.....qts. | 134,172 | 136,521 | 140,303 |
| Woollen yarn.....lbs. | 9,683 | 2,850 | 3,550 |
| Woollens..... | 186,495 | 211,080 | 275,118 |
| Zinc..... | 7,530 | 22,915 | 18,132 |

A glance at the preceding table will at once establish the fact of the importance and prosperous condition of trade between Altona and Hamburgh and Norway. A great and continual increase has taken place since the year 1835, in the imports of the following articles:—Bricks, cotton wool, and cotton manufactures, colonial produce, (particularly coffee,) glass, hardwares, linens, silks, soap, tobacco, rice, and woollens.

The value of the imports is not given.

The quantities of the principal articles imported into Norway from Holland, in 1835, '38, and '41, appear in the next table:—

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Bricks.....No. | 1,556,443 | 919,551 | 1,894,285 |
| Cotton wool.....lbs. | ..... | 13,516 | 38,865 |
| Coffee..... | 221,992 | 69,529 | 81,654 |
| Dye-woods..... | 42,208 | 16,524 | 20,620 |
| Earthenware..... | 99,833 | 55,634 | 77,192 |
| Flax..... | 313,981 | 182,158 | 316,727 |
| Glass..... | 11,893 | 18,657 | 49,211 |
| Hemp..... | 34,355 | 16,237 | 9,420 |
| Hoops.....No. | 4,695,492 | 1,326,025 | 6,073,584 |
| Iron, cast.....lbs. | 373,179 | 252,365 | 354,687 |
| Leather..... | 32,058 | 17,443 | 49,465 |
| Molasses..... | 15,101 | 7,464 | 33,502 |
| Oils.....qts. | 122,163 | 112,769 | 157,853 |
| Paints.....lbs. | 62,417 | 60,910 | 60,543 |
| Cheese..... | 202,775 | 268,700 | 251,130 |
| Rice..... | 31,465 | 37,791 | 46,007 |
| Sugar, raw..... | 55,851 | 46,000 | 37,444 |
| refined..... | 380,216 | 456,189 | 556,680 |
| Tobacco..... | 68,365 | 51,750 | 61,651 |
| Steel..... | 23,130 | 22,204 | 36,903 |

This statement does not show any sign of increased activity in the trade with Holland. Bricks, glass, hoops, and refined sugar, exhibit an increase; but most of the other articles have retrograded.

The next table exhibits the quantities of the principal articles imported into Norway from Great Britain, in 1835, '38, and '41:—

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Brass wares.....lbs. | 10,035 | 10,917 | 16,036 |
| Cotton wool..... | 30,536 | 64,926 | 126,419 |
| twist..... | 64,721 | 246,959 | 594,678 |
| manufactures..... | 83,876 | 86,200 | 226,313 |
| Coffee..... | 226,490 | 84,716 | 185,979 |
| Coals.....tons | 8,043 | 21,523 | 27,546 |
| Dye-woods.....lbs. | 89,442 | 43,231 | 88,354 |
| Earth-n-ware..... | 543,891 | 605,720 | 800,047 |
| Copperas..... | 74,550 | 74,848 | 125,438 |
| Flax..... | 24,994 | 33,884 | 97,573 |
| Gunpowder..... | 33,569 | 47,537 | 74,347 |
| Hides..... | 15,377 | ..... | 51,571 |
| Fire-clay..... | 250,650 | 330,000 | 260,000 |
| Iron, wrought.....tons | 205 | 304 | 287 |
| cast..... | 89 | 53 | 113 |

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Lead ..... lbs. | 53,794 | 86,912 | 111,089 |
| Linens..... | 21,490 | 54,124 | 46,232 |
| Paints..... | 193,515 | 59,405 | 249,974 |
| Porter..... qts. | 28,791 | 24,758 | 48,374 |
| Rice ..... lbs. | 28,673 | 22,349 | 14,742 |
| Salt..... tons | 1,415 | 3,256 | 1,727 |
| Saltpetre ..... lbs. | 54,387 | 67,241 | 73,558 |
| Shot, patent..... | 45,411 | 46,257 | 56,939 |
| Soap ..... | 181,064 | 30,489 | 184,169 |
| Sugar ..... | 177,179 | 88,908 | 179,452 |
| Tin-wares..... | 9,253 | 8,869 | 78,396 |
| Thread ..... | 14,866 | 8,884 | 31,942 |
| Tobacco ..... | 437,402 | 170,379 | 409,791 |
| Woollens..... | 75,390 | 59,601 | 106,695 |
| Steel..... | 44,550 | 69,686 | 137,823 |

A considerable increase has taken place in many of the imports from Great Britain, such as in cotton wool, cotton twist, and manufactures, earthen-ware, gunpowder, lead, and woollens; but, on comparing the trade in manufactured goods and colonial produce between Great Britain and Norway, and between Altona and Hamburg and Norway, it will be found that we fall far short of the latter. Since, however, says Mr. Macgregor, in his Commercial Tariffs, Part XII., the establishment of a regular communication once a week by Hull steamers, between that port and Christiansand, considerable quantities of colonial produce and of British manufactures are imported that way into Norway; and it is hoped that the direct trade with England through that channel will increase, and supersede, in some degree, the indirect and costly traffic by way of Hamburgh and Altona.

Our trade with Norway will most probably receive an impetus from the recent modifications of our tariff; and, should alterations be made in the duties now levied in that country on our cottons, woollens, and hardware, the improvement would no doubt be rapid and lucrative, and the trade might again be drawn into its legitimate and direct course.

The imports from France, although, generally speaking they have increased of late years, are not as yet of much consequence. The exports of Norwegian produce form the principal trade with that country. The following were the principal articles imported from Franc, in 1835, '38, and '41:—

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Brandy ..... qts. | 698,956 | 675,652 | 635,760 |
| Coffee..... lbs. | 84,245 | 97,497 | 185,979 |
| Corks, cut..... | 16,214 | 27,734 | 28,504 |
| Flax..... | 10,786 | 59,994 | 63,390 |
| Glass..... | 13,641 | 19,624 | 14,460 |
| Leather..... | 101,635 | 93,649 | 175,566 |
| Molasses..... | 612,253 | 390,105 | 801,188 |
| Paper..... | 9,598 | 18,824 | 28,900 |
| Dried fruit..... | 89,815 | 29,558 | 114,294 |
| Rice ..... | 10,788 | 3,395 | 17,671 |
| Salt..... tons | 9,485 | 11,021 | 11,701 |
| Sugar, refined..... lbs. | 51,172 | 59,901 | 25,883 |
| Soap ..... | 1,420 | 3,109 | 7,724 |
| Tartar..... | 9,870 | 2,283 | 8,664 |
| Turpentine ..... | 10,020 | 2,020 | 8,760 |
| Vinegar..... qts. | 104,688 | 87,060 | 46,884 |
| Wine..... | 458,282 | 256,828 | 331,180 |

The greatest advance appears to have been made in the articles of coffee, cut corks, flax, glass, leather, molasses, paper, dried fruits, and soap.

Since the separation of Belgium from Holland, a direct intercourse has been established with Norway, which promises well, and will probably become extensive. At present, the imports from Belgium are confined to a few articles, such as—

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Bricks .....No. | 115,340 | 61,359 | 98,576 |
| Coffee.....lbs. | 7,083 | 18,067 | 18,210 |
| Cotton wool ..... | ..... | 7,900 | 14,261 |
| Flax..... | 41,035 | 47,688 | 131,424 |
| Glass..... | 4,692 | 12,520 | 14,813 |
| Hoops .....No. | 18,750 | ..... | 244,424 |
| Leather.....lbs. | 4,728 | 262 | 59,563 |
| Paints ..... | 91 | 689 | 9,960 |
| Rice..... | 685 | 5,350 | 28,740 |
| Sugar, refined..... | 75,675 | 235,502 | 586,638 |
| Soap ..... | 4,728 | 2,217 | 19,086 |

The trade with Spain, Portugal, and the Mediterranean States, is limited, and is confined to the produce of the respective countries. The principal imports were—

| Articles. | 1835. | 1838. | 1841. |
|---|---|---|---|
| Cork.....lbs. | 81,996 | 8,439 | 71,584 |
| Figs.... ..... | 5,445 | 8,019 | 15,901 |
| Oranges..... .... | 80,523 | 101,551 | 149,541 |
| Raisins ..... | 4,264 | 11,241 | 18,192 |
| Salt.....tons | 33,100 | 37,426 | 43,399 |
| Wine.....qts. | 46,840 | 40,385 | 164,425 |

We may here shortly observe that a very cursory examination of the foregoing abstracts of the imports will be sufficient to acquaint us with the increased consumption of articles of luxury, and this fact may be taken as a fair criterion of the growing prosperity of the country.

It only now remains for us to take a short review of the shipping of Norway.

There appear to have been—

| | | | |
|---|---|---|---|
| In 1817..... | 1,692 vessels, of | 175,920 | tons. |
| 1827..... | 1,866 " | 148,470 | " |
| 1837..... ..... | 2,373 " | 206,122 | " |
| and in 1841..... | 2,509 " | 266,801 | " |

employing rather more than 15,000 men.

The Norwegian flag is to be met with in all parts of the world, competing with British shipping in the carrying trade. As a proof of the extent and success with which they have appropriated to themselves a portion of the carrying trade of the north of Europe, it need only be stated, that in 1838, 249 Norwegian vessels, of 64,784 tons, cleared from Swedish and Finnish ports in the Baltic with cargoes for foreign ports. And 18,733 tons of Norwegian shipping were employed in carrying freight from one foreign port to another.

The vessels of Norway begin to offer a serious competition to our own shipping in foreign ports, and it will be found that they not only rank next to the British, but in many places command a preference. And this close competition and preference is not to be traced to any peculiar encouragement offered by the Norwegian Government, or to any superior economy

which enables the Norwegians to sail their vessels at a cheaper rate than British vessels, but chiefly to the superior class of masters which the laws of Norway have created. The Norwegian Government, by wise regulations, have, in addition to the practical test required, made certain intellectual acquirements obligatory on those who aspire to be masters of vessels; and the result has been that an intelligent and respectable class of masters has been formed, which has created for their marine a confidence and respect, which our own appears to be losing; for our ordinary class of masters appear to have remained stationary, if they have not absolutely retrograded.

These are valuable observation on the improvement of the commercial marine of Norway; and no doubt much of the competition now offered in foreign ports to our shipping, by the Norwegians, Prussians, Austrians, and Americans, might be successfully encountered and overcome, if the British Government would follow the example of the Norwegian, and establish a sound and practical examination for the officers of our mercantile shipping.

For the last ten years, from 1833, the annual average number of vessels that cleared from Norway to Denmark was 2,136 of 79,352 tons, and from Denmark to Norway 2,262 vessels of 91,275 tons.

There were despatched from Altona and Hamburgh to Norway—

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| In 1835..... | vessels of | 12,990 | tons, of which | 92,511 | tons were | Norwegian. |
| 1838..... | " | 14,365 | " | 10,359 | " | " |
| 1841..... | " | 19,997 | " | 16,136 | " | " |

From Norway to the several ports of Holland, the number and tonnage of cargoes cleared were—

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In 1835..... | 898 | cargoes of | 135,112 | tons, of which | 79,131 | tons were | Norwegian. |
| 1838..... | 861 | " | 133,395 | " | 84,952 | " | " |
| 1841..... | 966 | " | 139,030 | " | 92,191 | " | " |

The chief proportion of goods exported to our own country is conveyed in Norwegian vessels, as the following figures, showing the number and tonnage of cargoes shipped from Norway to Great Britain, will testify:—

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In 1835..... | 787 | cargoes of | 115,136 | tons, of which | 103,607 | tons were | Norwegian. |
| 1838 ..... | 917 | " | 134,048 | " | 125,048 | " | " |
| 1841..... | 831 | " | 135,842 | " | 125,502 | " | " |

And the following number and tonnage of vessels belonging to Norway brought cargoes from foreign ports to Great Britain:—

| | | | |
|---|---|---|---|
| In 1835..... | 138 | vessels, of | 37,726 tons. |
| 1838..... | 139 | " | 33,636 " |
| 1841..... | 151 | " | 39,296 " |

A large amount of shipping is employed in the trade between Norway and France, as may be seen by the following number and tonnage of vessels sent from Norway:—

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| In 1835, 730 vess. of | 124,472 | tons, of which | 703 | vess. of | 119,837 | tons were | Norwegian. |
| 1838, 860 " | 141,227 | " | 797 | " | 132,712 | " | " |
| 1841, 829 " | 148,203 | " | ... | " | 139,842 | " | " |

Independent of this important amount of Norwegian shipping employed between the two countries, about 31,200 tons are annually engaged in the carrying trade between France and other foreign countries.

In further illustration of the increased employment of the Norwegian shipping in the direct and carrying trade with foreign countries, we have inserted the following statement of the number and tonnage of Norwegian vessels employed in the foreign trade with each of the principal countries in the two years 1838 and 1841 :—

1838.

| Countries at which the vessels arrived. | FROM NORWAY. Vessels. | Tons. | OTHER COUNTRIES. Vessels. | Tons. | TOTAL. Vessels. | Tons. |
|---|---|---|---|---|---|---|
| Sweden | 350 | 49,257 | 169 | 52,939 | 519 | 102,196 |
| Russia | 116 | 13,609 | 67 | 13,905 | 183 | 27,514 |
| Prussia | 202 | 12,228 | 86 | 7,748 | 289 | 19,976 |
| Denmark | 803 | 25,429 | 63 | 4,360 | 866 | 29,789 |
| Altona and Hamburgh | 84 | 10,357 | 64 | 5,096 | 148 | 15,455 |
| Holland | 356 | 84,952 | 52 | 10,563 | 408 | 95,515 |
| Great Britain | 730 | 125,048 | 139 | 33,587 | 869 | 158,635 |
| France | 797 | 132,712 | 171 | 35,350 | 968 | 168,062 |
| Belgium | 64 | 8,358 | 63 | 15,153 | 127 | 23,691 |
| Other countries | 86 | 12,209 | 188 | 36,965 | 274 | 49,174 |
| Total | 3,589 | 474,341 | 1,062 | 215,666 | 4,651 | 690,007 |

1841.

| | | | | | | |
|---|---|---|---|---|---|---|
| Sweden | 487 | 68,801 | 182 | 60,502 | 669 | 129,303 |
| Russia | 121 | 15,250 | 72 | 19,643 | 193 | 34,893 |
| Prussia | 281 | 19,977 | 61 | 6,786 | 342 | 25,863 |
| Denmark | 118 | 37,784 | 138 | 9,188 | 1,256 | 46,972 |
| Altona and Hamburgh | 1,146 | 16,136 | 85 | 14,164 | 231 | 30,300 |
| Holland | 359 | 92,191 | 78 | 20,164 | 437 | 112,355 |
| Great Britain | 731 | 125,502 | 155 | 40,727 | 886 | 166,229 |
| France | 760 | 139,482 | 207 | 45,775 | 967 | 185,257 |
| Belgium | 33 | 4,072 | 69 | 16,270 | 102 | 20,972 |
| Other countries | 102 | 13,562 | 188 | 44,573 | 290 | 58,135 |
| Total | 4,138 | 532,487 | 1,235 | 277,792 | 5,473 | 810,279 |

Thus the total tonnage of the shipping employed in the foreign trade in 1838 was 690,007 ; in 1841 it amounted to 810,279, an increase over the year 1838 of 120,272 tons, or 17½ per cent.

Of the 810,270 tons in 1841, 532,487 were employed direct between Norway and foreign countries; whilst the remaining 277,792 tons were solely engaged in the carrying trade between one foreign country and another, against 215,666 tons thus employed in 1838, which shows that in 1841 there was an important increase of 62,126 tons, or 28¾ per cent, in this division of their shipping trade. The figures in this statement do not, of course, represent the actual number and tonnage of vessels belonging to the Norwegian commercial marine, as many vessels perform two and three voyages in the course of the year. The real extent of the shipping has been stated in a previous page.

The Norwegian Government, by attending to the skill and activity of their pilots, erecting beacons, and preparing charts, are doing much to facilitate the navigation of their coasts, and to make them, with their thousand fiords and habors, more accessible than they have been hitherto.

R. V.

## Art. III.—MUTUAL LIFE INSURANCE.

SOCIETY ON THE BASIS OF MUTUAL INSURANCE.

"Non omnis moriar."

THE system of insurance, as now practised in Europe and America, embraces only three kinds of risks—marine, fire, and life risks. Over ships and their cargoes, over houses and their contents, and the chances of life, and over these alone, is its shelter thrown.* Of these three kinds, marine insurance was the first to obtain a firm footing in this country, as it was the first practised in Europe; and, indeed, as a system resting on settled rules of law, dates from the same period in England and the United States, and was incorporated into the jurisprudence of both countries by the same great lawyer Mansfield. At first, the universal usage was, as our older lawyers and merchants can still testify, to insure marine risks with underwriters—individual insurers, who guarantied each, on his own account, any amount of risk he saw fit, and undertook an individual liability for that amount, but no corporate or associate liability. Stock companies for marine insurance were hardly known in America before the begining of this century, and began to be established at about the same time as the companies for fire insurance. Indeed, fire insurance seems to have been the purpose for which insurance companies were first formed; and on the other hand it has never, we believe, been effected by underwriters, or otherwise than by companies. The Marine Insurance Company, in the State of New York, was chartered in 1802. The State Marine and the Madison Marine were chartered in 1825. Nearly all the Marine companies now doing business in the city of New York, have been chartered since the year 1825.

Most of the fire insurance companies are of the same recent date.

Life insurance in the United States, dates as far back as 1818. In that year, the Massachusetts Hospital Life Insurance Company began to insure life risks. The Farmer's Loan and Trust Company, in the city of New York, was incorporated in 1822, under the name of the Fire Insurance and Loan Company. Its charter gives the company "power and authority to insure all kinds of property against loss or damage by fire, upon any life or lives, and to grant annuities on any life or lives, or in any manner depending on any life or lives." The New York Life Insurance and Trust Company, chartered with a capital of $1,000,000, in 1830, insured lives to amount of $2,449,407, between that year and 1843.

The mutual system of insurance, either on marine, fire, or life risks, is of very late date; indeed, it can hardly be said to have been practised at all in the United States before the year 1830. And it is stated in an interesting pamphlet, setting forth the plan and objects of the Mutual Life Insurance Company of New York, that "the subject of mutual life insurance was introduced to public notice in the United States by that company, soon after it obtained its charter, in April, 1842." During the period from 1842 to 1845, the Atlantic Mutual, the Atlas, the Croton, and the Pelican Companies, and others, were chartered, all on the mutual sys-

* This is a general statement. Barratry, or the misconduct of ship-masters, is insured against as a marine risk, although in its nature a distinct kind of risk. The Equitable Insurance Company of New York city, we believe, insures against burglary; but this is an exception.

tem, and all, in addition to powers of marine and fire insurance, having power to insure on lives. The Mutual Benefit Life Company of New Jersey, was chartered in 1845. Besides these, several of the heavy English companies have avencies in the city of New York.

The foregoing sketch, slight as it is, is enough to show the great modifications the system of insurance has undergone, and the great advances it has made, during the last fifty years. Confined, at first, almost entirely to marine risks, we find it gradually expanded so as to take in fire risks, and finally it receives its most peculiar adaptation as life insurance. At the same time that the field of its operations was becoming broader, and its shelter was thrown over more risks, the structure of the system itself underwent great changes. At first, when marine insurance was the only insurance, underwriters were the only insurers. Then corporate and joint stock companies were established, at first, in England, for fire, and afterwards for marine insurance. And finally the mutual system is firmly established. We have here a two-fold advance of the system of insurance; at once in the number of risks to which it is applied, and in the mode of that application. This progress, so interesting, so remarkable, affords matter for much thought and hopeful anticipation. Is there not a natural relation and connection between the mutual principle and the law of insurance itself? and as it is the last, may it not also be considered the necessary and natural result of that law? And why may not the system of insurance—gradually but rapidly extended as it has been, so as to embrace successively first marine, then fire, then life risks,—why may it not be still further extended to embrace other relations of life and new risks?

Before going briefly into the details of mutual life insurance as established and practised in this country, let us say a word or two by way of answer to these question.

All insurance, whatever its kind, or the basis on which it is practised, whether on the mutual or stock plan, whether on houses, ships, or lives, rests on the same law—the law of average. This law is the result of a science peculiar to modern times—the doctrine of chances. Modern observation has succeeded, it is believed, in detecting, in the midst of the individual irregularity of those events in life which we call accidents, a prevailing general regularity running through and pervading them.

It has been made out that events on earth happen in equal numbers, in equal times; that what we call chances, are, indeed, chances to the individual, but are subject to a general law of regularity in the aggregate. "The number of births, marriages, and deaths, the proportion of male to female, and of legitimate to illegitimate births, the houses burned, and a vast variety of other apparently accidental events, are yet, when our experience embraces a sufficiently wide field, found to be nearly equal in equal periods of time."* As this fact is often stated, there seems to be a wonderful mystery in it. Fate seems unveiled, and its decrees divulged. Yet it is a truth, striking rather from the newness of its discovery than from any mystery in itself. Instead of asking why events happen thus regularly, may we not rather ask, why should they not? To expect events to happen in unequal numbers, in equal periods of time, other things being equal, would be to expect effects without causes. While events are happening, time must pass; and we have no more reason to suppose that

* McCulloch, Commercial Dictionary, Art. Insurance.

events would happen irregularly, than to suppose that time would pass with unequal velocities. That this truth should not have been thought of, that it should not have been made use of, until this late day, might seem strange, did we not recollect that it is not until this late day, that the true and proper use of society, as a relation among men for their mutual benefit and protection, and not an arrangement for convenient oppression of them, has been recognized.

If the individual uncertainty of the events of life were removed, we should, indeed, have a great discovery. But we have no such thing. Modern science declares, that out of a given number, in a given time, so many shall surely die; *who* shall die, it does not pretend to say, it does not care to know. It has secured enough for its benevolent purposes: for while the uncertainty of those events which dishearten, and impoverish, and destroy, remains, science enables man, by the exercise, at his will, of a prudent foresight, free from all possibility of mischance, to prepare for the event, and soften the blow as it falls; and thus, in a new sense, while

"Binding nature fast in fate,
Leaves free the human will."

The system of insurance, as at present practised, assuming this fact of regularity, with regard to shipwreck, fire, and death, and guarantying its truth, provides a fund by mutual contributions, to be distributed in fair proportions among those of the contributors who shall suffer by these calamities. But are shipwreck, fire, and death, the only events which happen with regularity? Are they the only disasters in the world? We have said that this general regularity is nothing wonderful: it means nothing more than the absence of any special interposition of Providence to disturb the ordinary course of human events. It is not then confined to shipwreck, fire, and death. Nor are they the only disasters. It is not every one who owns ships and houses. It is not every one who can indulge in the complacent regret of Dogberry, that he is "one who hath had losses." But all, the mechanic and the laborer, as well as the trader and the capitalist, have health to lose; and to them, health is wealth also, and the only wealth. Moreover, the man of money is liable to loss of money in many ways besides shipwreck and fire—ways far more frequent and dangerous than they. Failures, frauds, the bad faith of buyers, of sellers, and of agents, mercantile loss in its thousand forms, are events more frequent than shipwreck and fire, and as disastrous. If, then, these events are as capable of being made the subject of insurance as those to which it is now applied, being equally regular—if they need it more, being more common and more ruinous—why should not the system of insurance be made to embrace them also?

We hear much declamation and denunciation about the love of money among men, the pursuit of wealth, the making haste to get rich. But we are persuaded that it is not the desire of wealth that can or does keep the world at work with the regularity of daily routine, which, day by day, fastens the merchant to his wares, the mechanic to his tools, the laborer to the ground. It is not the love of money, but the fear of want. Hopeful, indeed, is human nature, far more hopeful than we think it, if the millions who toil for daily bread are toiling with any other motive or hope. No. It is the boding possibility of the poor-house, staring men in the face—the chance of coming to want, arising from the present arrangement of society, by which each man is left to take care of himself—the chance

of falling in the ranks, in the forced march of life, to be trodden down by the advancing throng—this possibility, this chance it is which keeps the energies of men feverishly, ceaselessly at work.

We do not complain of this necessity for labor, but we do complain of the unequal allotment of labor and of its uncertain reward. We would not have the necessity of labor removed, if we could; but we would have some change, some modification of the arrangement of society from which this inequality of allotment and uncertainty of reward arise, by which the evils of them may be at least assuaged. We believe that these are in truth those social evils for which so many and so various remedies have been started. The Liberal and the Radical insist on the efficacy of party organizations. On the other hand, the Fourierite urges a reorganization of society. But the Socialists, going farther than all the rest, bid us break society into pieces in order to recast it. Like Medea, they ask of society to surrender its life with, its infirmities into their hands, trusting to their good faith, as well as capacity, to renew its youth.

What forms of government can do for man—how far, as a contrivance of human wisdom to provide for human wants, they are effectual in preventing evil, and in doing good, the American citizen of the present day, is, perhaps, better able to judge, than the citizen of any other country, or the people of any other age. Americans know, because they enjoy to the full, the blessings of civil liberty. But knowing to the full how much civil liberty can do for man, we also know how much it cannot do, and must, as the result of our experience, confess with chagrin how insufficient for the well-being of men is civil liberty—how vast is the gap between civil liberty and social liberty. The right of personal security, of private property, and of reputation—the right of marriage, the great rule of equality before the law, and the right of all citizens to a voice in those public affairs which are the common concern of all—these go to make up civil liberty. Yet what is civil liberty, as thus defined, but a statement of what all men may claim as rights, rather than of what all men need—of the wrongs which men must not do each other, rather than of the good they may? It contemplates a state of society in which each man stands apart on his reserved rights, left, isolated, to take care of himself—in which the strong and cunning secure a goodly share for themselves, by virtue of "the sacred right of properity," while the simple and the unfortunate are left to go to the wall.

Side by side with this civil liberty may exist want, destitution, and degradation. In the enjoyment of this civil liberty, life may be a burden. The greater its perfection, the greater the mockery of the contrast. It affords one of the many illustrations of that wise saying of Johnson's, "there are many things it is misery to want, which it is not happiness to possess." Civil liberty may be the highest boon to man, but there are some things prior, if not higher. Man must be free, to be happy; but he must live, to be free.

Civil liberty prevails to a great extent in England and France,—to a greater or less degree in all the civilized States of Europe. Americans think it is enjoyed to the full in America. It prevails in Great Britain. There, the strong may not strike the weak; the poor may not rob the rich; the equality of all before the law is tolerably well maintained. Yet what shall we say of the four millions of English work-house citizens,—of the seven millions of Irish "*freemen?*" It prevails in America. Yet

what shall we say of the millions of our day-laborers, freemen all, under the guarantees of civil liberty, yet hirelings, whose lot it is to toil each day, the day long, but for meat to give them strength to toil. The three millions of Southern slaves, without right to their own lives or their own limbs, without the right of property or of marriage, standing in the scale of civil liberty far below English paupers, yet have far more than they of those physical and social comforts, the want of which makes life a dependence and a degradation. Slavery, true to the domestic and social nature of the institution, secures to the slave, while it unmans him, many of the physical and social wants of a man; while English liberty, in its respect for the sacredness of civil rights, stands reverentially apart, and leaves them sacred and in rags. Want, and the fear of want—the dependence of the employed on the emplorer, of the laborer on the capitalist, of the borrower on the lender,—all the evils, in short, of an unequal and isolated social condition, may co-exist with civil liberty; but where they exist, in the degree they exist, there is not social liberty. We would have both. In addition to security for the right of man, we ask provision for the wants of man. We would have secured a fair reward and a certain reward for labor.

But if society needs something more effectual than the forms of civil government, and the guarantees of civil liberty, to secure the masses, the certainty of daily food, raiment, and shelter, freedom from dependence and the fear of want, it also needs something more feasible than new theories of society. Difficult as it is to pronounce concerning human society, what is natural and necessary to it, and what is factitious, we are persuaded that the relations of parent and child, of husband and wife, the family relation in all its branches, the relations of buyer and seller, of employer and employed, and of rich and poor, have their root in the nature of things. Any system which proposes to remedy the evils of society by cutting up the roots of these, essays to cure by killing. The remedy must be brought about, not by the destruction, but by the modification and amelioration of the present order of things. We must take men as they are,—the interests, the inclinations by which they are now moved,—and not by uprooting but by giving them a new direction, bring about a better state of things. Let parties continue their feverish strifes, working out, blindly and unwittingly it may be, a high and useful end—let the merchant, the mechanic, the laborer, keep to their callings, effecting public good while intent only on private gains—let the sacred privacy and purity of the family relation remain—nay, more, let the inequalities of fortune remain, the necessary result, perhaps, of a corresponding inequality of powers, and more beneficial than any forced equality, were it possible,—let them all remain, but give us at least some modification, some new adaptation of them, which shall put an end to the cold isolation of man from man—which shall make mutual dependence a bond of union, instead of a chain of servitude—which shall secure aid in misfortune, not as a charity but as a right—which, in short, shall make the freemen in law, free also in social condition, and shall relieve civil liberty from the harsh contrast in which it now stands with the rags of its votaries.

The great and growing inclination to associated action which pervades society in this age, has been often remarked. Springing from a clearer recognition, than has ever before prevailed, of the true use of society as a union for mutual good, it may, perhaps, be looked upon more than any

other one thing, as the characteristic of the age. By partnerships, by incorporation, by joint stock companies, by lodges, by united fraternities, and by clubs, the benevolent purposes and the great and daring purposes of the age are affected or essayed. By these, canals have been dug and railroads laid, steamships launched and factories built; by these, food has been supplied to the hungry and care for the sick; by these, great commercial enterprises have been carried on, colonies have been planted, and empires founded; by these, missionaries and teachers have been sent "out into all the earth." How much the principle of associated action has done for insurance we have already seen. We have seen that insurance by individuals, which was never practised in more than one branch of risks, has been partially superseded, even in that one branch, by companies for insurance, to which all the other branches of insurance are exclusively confined; and we have noticed its last and most interesting development in the mutual system.

These facts force upon us the question—may not this plain of associated action, which has done so much for the world, do still more? May not this plan, which has done so much in the form of insurance, do far more by means of insurance? Let us not be misunderstood when we say, that by a wide and general application of the system of insurance, a direction may be given to this most powerful agent, the spirit of associated action, which would lead to much good. Only political quacks, or political dreamers, cry up new panaceas for social evils. It cannot be too often repeated, that if society is to be bettered, it is to be done indirectly, by degrees, and by the application of forces now at work in society, not by the introduction of new forces. Among these existing forces, the spirit of which we speak is certainly one of the most powerful; as, directed to the purposes of insurance, it is one of the most familiar. For both reasons, therefore, a general system of association for the insurance of all the great risks of society is recomended.

How will the system of insurance, thus applied, meet the evils arising from the unequal allotment and the uncertain reward of labor? We have said that this unequal allotment and uncertain reward, come from that social arrangement which leaves each man to take care of himself, to stand or fall by himself, and which makes the masses dependent on daily labor for daily bread. Now, to the laborer, thus self-dependent, thus relying on a single dependence, loss of health or loss of labor is an utter blight. What case can be imagined, more urgently calling for relief from a system of compensations like insurance, than that of the laborer, out of health, or out of work? What is shipwreck to the merchant—what is fire to the man of estate? They have other ships, other houses; they have wares, and money in bank: at least, they have health and hands, while even the use of these is denied the laborer pining in sickness, or unwilling idleness. Moreover, as we have seen, the mechanic and the merchant are liable to many kinds of loss, besides shipwreck, and fire, equally subject to the law of average occurrence, equally uncertain as to individual occurrence, making the reward of their exertions uncertain. But for these there is no insurance. When they fall on a man, he is left to suffer alone.

Now insurance does not pretend to diminish the aggregate of human misfortunes. On the contrary, it assumes that aggregate amount as a fixed fact. But it also assumes the larger aggregate of prosperity as equally certain. It presupposes a loss of money to some of the insured, or rather

a payment of money, which the event proves needless. The fire, the shipwreck, never happens. The life insured lasts longer than its average length. Beyond the sense of security, therefore, which the premiums have earned to the individual, they have been money given away; but beforehand no one could tell this. Insurance, therefore, takes from all a contribution; from those who will not need its aid, as well as from those who will; for it is as certain that some will not, as that some will. But as it is uncertain who will, and who will not, it demands this tribute from all to the uncertainty of fate. And it is precisely the moneys thus given away by some, and these only, which supply the fund out of which the misfortune of those whose bad luck it is that their moneys have not been thrown away, are repaired. The afflicted finds his money spent to some purpose, and only the fortunate part with it for nothing. From this point of view the whole beauty of the system of insurance is seen. It is from this point of view that it presents society a union for mutual aid, of the fortunate and unfortunate, where those only who need it receive aid, and those only who can afford it are put to expense. Thus, while the aggregate of human suffering and calamity remains undiminished—thus, while the uncertainty of their visitation remains unremoved—human ingenuity and co-operation equalize the distribution of this fearful aggregate, and alleviate the terrors of uncertainty.

Let us suppose such a system to be carried out. It shall embrace all the ordinary risks of social life—1. Shipwreck; 2. Fire; 3. Life; 4. Loss to the merchant and mechanic by failures, the frauds of employers, of agents, of buyers and sellers; 5. Loss in carriage by land; and, 6. Loss of health and of employment, to the mechanic and laborer. The associations might embrace only those of the same calling, or they might take in all pursuits and all risks. Each city and township, or each county, might have one or more associations of its own. County mutual fire companies have thus been very generally established in this State. By a system of mutual insurance thus generally established, embracing all callings, a great fund, as it were, for the benefit of society, would be created; a fund to which none could be said to contribute gratuitously, from which none but the needy should be aided; a great reserve fund, held in readiness for the uncertain case of want. We thus have the mechanic, the laborer, and the merchant, joined hand in hand in mutual protection against the risks of their callings; we have the masses, above all, shielded from the most blighting evil of the inequality of human condition, the danger of destitution; we have society united on the basis of mutual insurance.

We pass from these views, which, we fear, will be called theoretical, to matters, which, we suppose, will be thought of more practical interest; which, we are sure, afford the best illustration of the general system of insurance, of its flexibility, and of the variety in modes of application to the varying circumstances of life, of which it is capable. We will give, briefly, the details of mutual life insurance as now practised in this country, considering the sources of management of the capital or business fund of the mutual life companies, the persons whose lives are insured, the risks taken, and the persons in whose favor lives are insured, referring more particularly to the charters of the Mutual Life Company and the Mutual Benefit Life Company of New York city, the State Mutual of Worcester, in Massachusetts, and the Loan Fund Life Company of London, which, although not a mutual company, is yet not merely a stock company,

but combines the two. Both the London and Massachusetts companies have agencies in the city of New York.

The great object of life insurance is the creation of a fund, out of which the sums stipulated are to be paid in case of death. In the mode by which this fund is created, lies the difference between the stock, or proprietary, and mutual systems. In the stock companies, it consists, primarily, of a capital stock in shares paid in by the proprietors. In the mutual companies there are no shareholders distinct from the insured, those insured being themselves the insurers also, and the fund is raised from the insurance rates, or premiums. In the proprietary, as well as in mutual companies, the fund thus obtained from premiums is devoted to the payment of the sums insured; but in the mutual companies there is, primarily, no other fund than this, nor is any other deemed necessary. The object of a capital stock is alleged to be to secure the insured, and supply any amount in which the proceeds from premiums and business may fall short of the sums insured. But if the funds from premiums are likely to prove insufficient to cover losses, what are the stockholders to look to for dividends on their shares? There is nothing but the premiums, strictly, out of which they can pay themselves for the risks they undertake. In other words, if the law of average, on which the calculations of life insurance are based, and by which the rates of premium are determined, is not sufficiently well established to secure an amount of funds from premiums, large enough to cover losses and pay interest on stock, then life insurance stocks, all insurance stocks, are far from safe, not to say profitable investments. On the other hand, if the stock system is profitable, the mutual system must, at least, be safe; for premiums that yield fund enough to pay interest on capital stock, must, of course, yield fund enough to cover risks. Now safety is all that, in the mutual system, is sought; if the guaranty of the risk is good, it is enough; profit is out of the question. There are no stockholders. The insured, who would make the profit, are themselves the insurers out of whom it would be made.

The rates of premium are determined on issuing the policy of insurance. A man wishes to have his life insured for a certain sum, for the period of his life; in other words, he wants a guaranty that this sum will be paid on his death, whenever it happens. His age is twenty-five years. On applying to a mutual life company, the tables of average life are consulted, and the average age persons twenty-five years old attain, in the community to which he belongs, is ascertained. The actual observations on which this table is based, are the calculations made by Dr. Price from the bills of mortality of Northampton, and by Dr. Heysham from those at Carlisle, extending from the year 1779 to 1787. "It is generally conceded that the rate of mortality, in the Middle and Eastern States, corresponds very nearly with that given by the Carlisle table:"—"it may be relied upon in all calculations wherein the tenure of life is concerned, throughout the Middle and Eastern States, also the Western, and a portion of the Southern."*

The average chance of life of the applicant, ascertained by this table, is the basis of the terms of guaranty. The company undertakes no payment of a gratuity. It requires an equivalent from the insured. If this

* A Treatise on Life Insurance; together with a Short Account of the Mutual Life Insurance Company of New York. New York: 1845.

equivalent is to be paid in annual instalments, these instalments must be of such an amount, that a number of them, equal to the number of years which the party has a chance of living, will amount to the sum guarantied. An instalment of this amount is demanded, as the consideration of the guaranty; in other words, this is the fair proportion which the applicant is to contribute to the common fund of the association of which he is thus made a member, and in which he is at once insured himself, and the insurer of his felllow members. And this annual instalment is the premium rate.

The provisions relating to membership, and the payment of premiums, in the Mutual Life Company of New York, are in sections 3 and 7 of its charter. Section 3, provides that all persons who shall insure with the corporation, and also their heirs, executors, administrators, and assigns, continuing to be insured, shall thereby become members thereof, during the period they shall remain insured by such corporation, and no longer.

Sec. 7. "Every person who shall become a member of this corporation by effecting insurance therein, shall, the first time he effects insurance, and before he receives his policy, pay the rates that shall be fixed upon and determined by the trustees, and no premium so paid shall ever be withdrawn from said company, except as hereinafter provided, but shall be liable to all losses and expenses incurred by this company during the continuance of its charter."

If the man whose life is thus insured, lives out the average term of his life, he will have paid out in premiums the sum insured; if he lives longer, he will have paid more than the sum insured; if it is his chance to die before his term of life is spent, the benefit sought is obtained: for it is the chance, the chance of premature death, from the evils of which life insurance aims to guard us.

But, it will be said, the moneys which have thus been paid out, as premiums, year after year, during a long life, and which have been accumulating in the hands of the company, might have been yielding interest during this life to the insured, so that, if it lasts as long as the average, or longer, and the premiums consequently equal or exceed the sum guarantied, he is a loser by the amount of the interest at least. This disadvantage is obvious—too obvious not to have pointed out its own remedy. The company can do for the insured what he would have done himself with his funds had they remained in his hands. What safer, or more profitable disposition of the funds, than investment on security?

The Mutual Life Insurance Company, of New York, provides, by section 10 of its charter, that the whole of the premiums received shall be "invested in bonds and mortgages on unencumbered real estate within the State of New York." Section 11, however, authorizes the company to invest "a certain portion of the premiums received, not to exceed one-half thereof, in public stocks of the United States, or of this State, or of any incorporated city in this State."

The State Mutual, of Massachusetts, authorizes its financial committee to invest the capital, stock, and other funds of the company, to collect or sell the stocks or securities on hand, or any part of them, and invest anew the proceeds.

The Mutual Benefit Company of New York proposes, in its printed statement, to invest "in bonds, and first mortgages on unencumbered real

estate, or in stocks of the United States, or of the States of New Jersey, New York, or Massachusetts, or to members on their policies."

This plan of loaning to members on their policies is borrowed from the English companies, some of which united a scheme of loans with insurance on lives. By the terms of the "National Loan Fund Life Assurance Society," of London, the assured has the privilege of converting his policy, at any time, "into a security on which he may borrow equal to two-thirds of his payments." "He may, at *any time*, (after the expiration of one year,) act upon the fund" to this extent, "as a cash credit, upon giving notice to the office or agent, at each branch of the Society."

This plan, in connection with life insurance, has much, we think, to recommend it. It contemplates the wants and emergencies of life, as well as death—the present interest of the insured, as well as that of survivers. It takes away, to a degree, the somewhat repulsive *post mortem* aspect of life insurance. It is, in a manner, an approach to that general application of the insurance system to the emergencies of life which we have been urging. Yet it is merely a provision for loans, on which interest is to be paid, and not a guaranty or insurance against the wants or misfortunes which, it may be, occasion the necessity of borrowing. The facility, however, of borrowing on the mere security of the policy, is no small thing in these times, when money is necessary even to hire money, and the ability to borrow implies that the needy man is worth at least twice the amount he borrows.

The management of the fund is, perhaps, the most delicate and responsible part of the insurance system—even more so than the adjustment of the premium rates. It is evident how much wise and judicious investments may effect. The accumulations of the fund become, necessarily, in course of time, very great. The investments are, in fact, at compound interest—for the interest, as it accrues, is itself put out at interest.

There is, however, a coloring, an exaggeration in the statements of the warm friends of the mutual system, concerning these accumulations, which may mislead. They are enlarged on as the profits of successful business. Bonuses, dividends, accumulations, are triumphantly pointed to as the results of the mutual system, and we are reminded that the stock companies pay but the bare sum insured. "To illustrate the advantages," (we quote from the pamphlet before mentioned,) "resulting in favor of the Mutual Company, in these supposed cases of insurance, we shall take for our data the accumulation of profits, from the experience of the Equitable Society, of London, to which we have before had occasion to make reference. Suppose the parties to have been thirty years of age, at entry, and insured in the sum of $10,000; the insurances are continued twenty-two years before the purposes intended are accomplished. The accumulation on them during this term of twenty-two years, by the above data, is $10,050. We here have a very large accumulation of profits to the credit of the parties, wholly growing out of the mutual principle, and continued for their future benefit. These advantages are entirely lost with a joint stock company; the action of such a company gives no such benefits, as the profits accruing from the transactions are periodically withdrawn from it, and disbursed among the stockholders, in remuneration for their investments." This statement is not correct, in point of fact, with respect, at least, to some of the stock companies. The National Life Company, of

London, for instance, undertakes to divide two-third of the *profits* (as they are termed) annually, among those assured for life.

But, allowing the superior advantages of the mutual companies as thus stated, and they are undeniable, we still deny that these sums, accruing as in ordinary cases they can accrue, only from the accumulation of interest, are, in truth, profits. If by profits anything more than this is meant—if we are to understand by it the excess of premiums paid in over losses paid out, the word is equally out of place. The premiums, based on the law of average, are fixed at such rates as to be sure in the long run to equal the amounts insured. If the rates are less, the company runs great hazard. If greater, the rates are exorbitant, funds will be accumulated unnecessarily, and dividends made from them will in fact be but repayments of needless charges.

The interest on deposits in savings banks is as much profit as the interest on the funds of the mutual companies. They are, in this respect, savings banks, and nothing else. The advantage is the same in both, and it has often been enlarged upon in favor of the mutual life companies. But, in addition to this, they have the great, the vital advantage, that a certain fixed amount is secured, to be paid whether the sums deposited, or premiums, equal that amount or not—while, in savings banks, only the sum deposited is repaid, with interest. But the interesting connection of the two systems is here obvious. Had we the space, we should deem it no digression to state briefly the statistics of savings banks, and sketch their rapid advance from the year 1804, when the happy scheme was first introduced in England by Priscilla Wakefield, down to the present day, when, in Great Britain, the number of depositors is over eight hundred thousand, and the sums deposited amount to $117,000,000, and in New York the number of banks is seventeen, and the amount deposited is over $7,000,000. Savings banks and life companies are both the result of the same general movement of the times—the same prevailing disposition among all classes, to prepare for the chances of life, out of certain gains to make provision for possible misfortunes, and to unite in providing compensations for the evils and risks of an unequal and isolated social condition.

The accumulated interest on investments is variously disposed of, by different companies. It of course belongs to the members, in due proportion to their payments of premium; only the mode of benefiting by it varies. Some insist on the importance of retaining the interest and adding it to the fund, in order to secure a safe basis for business. The share of interest due to each member is added to the sum insured, and the accumulated amount paid on the termination of the life. This is the plan pursued by the Mutual Life Company of New York. Another course is, to apply it to the reduction of the premium rates; a third, to distribute it in dividends. The Mutual Benefit Life, of New York, and National Loan Life, of London, pursue either, at the option of the insured—or, as the circular of the latter states the matter, "Two-thirds of the profits are ANNUALLY divided amongst those assured for life, on the participating scale of the society; and each bonus, at the option of the assured, will be paid in money, or applied to the reduction of the future premiums, or an equivalent added to the policy." These different plans all plainly amount to the same thing. If the premium rates charged are high enough to secure an ample fund for the operations of the company, the interest may be, and ought to be

divided. If the dividends are low, it is equally wise and fair to accumulate the interest. The insured gets the good of it, either in a dividend or a larger amount of policy, or a lower rate of premium.

Another important consideration relating to the premiums, is the terms of payment. The general extension of the system evidently depends much upon this. If the rates are not only high, but made payable at distant intervals, and in large amounts, and if the penalties and forfeitures are rigid, none but those of certain and considerable means can venture upon life insurance. The present terms of the life companies are far otherwise. If the insurance is for life, the premium is generally payable in annual instalments, or in one gross sum. By the regulations of the Mutual Benefit Life Company, the "premium, if over $50, can be paid one-fourth in cash, and three-fourths in a secured note at twelve months, bearing 6 per cent interest, and subject to assessments if required; or it may be paid monthly, or quarterly." This company has another excellent arrangement which deserves particular notice. Persons "insure $500 for life, by paying twenty-five cents weekly, or $1,000 by paying fifty cents weekly, the policy always remaining with the company, with the premiums paid endorsed thereon; and in case of death they will be entitled to the amount thus insured, deducting therefrom the balance remaining of weekly payments, with interest for the current year." In the National Loan Life Company, a "life assurance may be effected either by one payment, or by an annual premium, which may be paid monthly, quarterly, or half-yearly, if more convenient." And all the life companies, we believe, offer to take back policies on certain terms, paying for them a fair equivalent. But this privilege of surrender is, in general, confined to policies for life. The National Loan Life, however, allows the assured to convert his policy "into an immediate payment, after five years, of its present value." We do not see how the advantages of the savings bank and of the life company could be combined and placed within the reach of all more effectually than by these facilities, in addition to the privilege of borrowing on the security of the policy.

The person whose life is insured, as the term is, is the person on whose death the money is payable. Life may be insured for life, or for a number of years; and insurance is made on survivorships, payable to one of two, in case he survives, on the death of the other; and upon joint lives, payable to either of two, on surviving the other.

Life risks are, as a rule, guarantied only to persons of general good health. The reason is obvious: insurance guarantees the law of average, as it applies to communities ordinarily healthy,—to insure the sick would be to guarantee the exception, and not the rule. The health of the applicant is ascertained by his solemn statements, and the examination of a physician.

We have said that the person paying the premium is the one on whose death the sum insured falls due. There is certainly, at first thought, something chilling and repulsive in the idea that your own death is to be the occasion and condition of the benefit bought by your own money. We have seen, however, what present advantages and facilities to the insured the mutual companies now afford. Moreover, we believe they allow persons to have insurance effected on the lives of others. Whether this practice, in general, would be held consistent with the policy of the law, and is legal, is not altogether clear. But it is very certain that any one

having a claim on another, and therefore a pecuniary interest in his life, may get that life insured for himself; and, at any rate, policies may always be assigned, and the creditor, or lender, or purchaser, as assignee, receives the benefit of the insurance. And even if the benefit, in ordinary cases of insurance, does not go to the insured himself, yet it goes to that other self, his wife and children. The obligation, too, of an honest debt, is of almost equal concern; but, by the operation of law, a debt has priority over these claims of wife and child—so that if the fund provided by the insurance is insufficient to cover more than the debts of the deceased, the wife and child may still be left portionless, and even insurance fail of its highest aim. In view of these considerations, the Legislature of New York, has enacted as follows:—

"Sec. 1. It shall be lawful for any married woman, by herself, and in her name, or in the name of any third person, with his assent, as her trustee, to cause to be insured, for her sole use, the life of her husband, for any definite period, or for the term of his natural life; and in case of her surviving her husband, the sum or net amount of the insurance becoming due, and payable by the terms of the insurance, shall be payable to her to and for her own use, free from the claims of the representatives of her husband, or of any of his creditors; but such exemption shall not apply, where the amount of premium annually paid shall exceed three hundred dollars.

"Sec. 2. In case of the death of the wife before the decease of her husband, the amount of the insurance may be made payable after death to her children, for their use, and to their guardian, if under age."

The wisdom of this act is obvious. It simply extends the right of insuring surviverships, possessed by all other persons, to the husband and wife. The exemption in favor of the wife and children, as here limited, is sufficient to secure them, at the usual rates, at least $10,000; and this, together with the accumulated interest of years, is a competency secured.

These details are enough to show the interest and importance of life insurance. They also show, we think, the great feasibility of the whole system of mutual insurance, and its capabilities of general application.

As to life insurance, nothing need be said in praise or defence of it. The arguments for it may be stated in a few words. By the laws of nature, and by the laws of society, a man is placed in relations and under obligations towards fellow beings, which, but for him, would not have existed, and the consequences of which, though ceasing to him with his death, remain to them after it. The wife, the child, the creditor, and their claims upon him, do not die when he dies. Life insurance secures a surviving provision, so to speak, for these surviving obligations—or, rather, secures a man from the mischance of being cut off prematurely, before he has himself made such provision.

The strange superstition about interfering with the mysteries and decress of fate, and distrusting Providence, needs no notice. Life insurance is no guaranty against death—no attempt to baffle or ward it off. It is the very opposite. It realizes, it assumes and acts upon, the certainty of death. Indeed, when a man has taken the responsibility to act for himself so far as to incur the obligations of a man to wife, and children, and creditors, it is an ill-timed apprehension of interfering with the ways of Providence which fears to make provision for them, after death shall have disabled him. Moreover, merely as an event subject to the law of aver-

age, apart from its blighting consequences to survivers, death may be considered a fit basis of a system of insurance.

It remains to be seen, why all the other mischances of life, equally calling for this beneficent system of recompenses, equally capable of its application, should not also be made subjects of mutual insurance.

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## Art. IV.—LAW OF DEBTOR AND CREDITOR IN LOUISIANA.

NUMBER IV.*

In a previous article, reference has been made to the principles of the civil law, governing the relation of husband and wife.

So widely different are these principles from those of the common law, and of such great importance is some knowledge of them to a mercantile community, in so far as they affect the commercial relation of debtor and creditor, and so little general information exists upon the subject out of the State of Louisiana, that no apology is deemed requisite for giving to its consideration a space not usually allotted in this Journal to any other than purely commercial topics.

Before proceeding to consider the civil law provisions controlling the rights and duties of husband and wife, upon the subject matter of property, it may not be uninteresting to glance at the articles of that code defining the relation itself, the character of the contract of marriage, and the causes for which it may be dissolved in the life-time of the parties;—and here, it seems a matter of no slight surprise that the civil law, which establishes upon a broader and more liberal basis than any other system the pecuniary rights of married women, and most carefully and jealously watches over and protects such interests, should, in many of its provisions, betray so manifest a disregard to those rights which the sex so much more highly prize, as above riches, and which pertain to the feelings and the affections. What an insult to her dignity and purity of character is that article of the code which declares that the *woman* shall not be at liberty to contract a second marriage until after the expiration of *ten* months from the dissolution of the first, while it leaves the *man* to marry when he pleases!—as if the marriage of the widow at a time when, by any possibility, she could be in that situation so evidently in the mind of the law-makers, could only be prevented by a legal prohibition! Such a provision might have been a wise one, and adapted to the prevailing character of the sex, in the meridian of Rome and Byzantium, after the glory of the ancient republic had departed, and the empire was in its decline; and, even there and then, one would suppose that the legal restraint upon a woman who could think of marrying a second husband, while in a state of pregnancy by her first, would be likely to provoke greater evils than it was designed to prevent;—yet, strange as it may seem, this prohibition is retained in the code of Louisiana, copied from the Code Napoleon, which received it from the Roman law. Nay, in the Louisiana code, it is dignified with an entire

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* For No. I. of the series of articles relating to the Law of Debtor and Creditor in Louisiana, see Merchants' Magazine for July, 1846, (No. I., Vol. XV., page 70-75;) for No. II., see same for November, 1846, (Vol. XV., No. V., page 471-475;) and for No. III., see Magazine for January, 1847, (Vol. XVI., No. I., page 53-57.)

chapter, composed of one article—no other provision being allowed, by its proximity, to detract from its emphatic character.*

But, in another respect, the civil code of Louisiana has made a long stride of improvement upon the Code Napoleon and the Imperial rescripts. By the latter, a dissolution of the marriage bonds for the cause of adultery can only be claimed by the injured *husband;* by the former, "the wife may also claim a separation in case of adultery on the part of her husband, *when he has kept his concubine in their common dwelling.*"† The language of this article is quoted that the reader may fully appreciate the extent of the moral stride of advancement in the legislation of one of our sister States! It would be doing great injustice to the moral enlightenment of a recent legislature of that State, if the writer failed to notice another prodigious stride in the march of improvement, by an amendment of this article, thus—"by adding after the word 'dwelling' the words, 'or openly and publicly anywhere!'"

By the civil code of Louisiana, as also by the Napoleon code, if the wife who sues for a separation from her husband has left the common domicil, or declared her intention to do so, the judge before whom her suit is brought shall "assign a house where she shall be obliged to dwell, until the determination of the suit;" and further, she is held to *prove* that she has not broken bounds, as often as it may be required of her, ("*la femme est tenue de justifier de cette residence, toutes les fois, qui elle en est requise,*") under the penalty of a total suspension of all proceedings on her behalf.‡ With such Argus vigilance does the civil law watch over the husband's honor, by preserving the person and chastity of the wife during this short suspension of his absolute control, that she may be returned to him unbesmirched by soil or cautel, should it be decided that she is not entitled to have her demand for separation allowed!

By the civil code, a separation may be claimed by either party on account of ill-treatment, if that be of a nature sufficiently cruel and outrageous to render their living together no longer supportable. It may also be claimed by either party if the other have "publicly defamed," "abandoned," or made "an attempt against the life," of the complaining party. These are all the enumerated causes for which the dissolution of the marriage contract may be obtained under the civil code of Louisiana.

The separation "grounded on abandonment" is that which is the most frequent subject matter of petition to the courts of that State. The course pointed out by the law to secure a separation for this cause, is so clear and simple, involves to little expense and so little publicity, that the legislative branch of the government is relieved from a burden which is not a little troublesome to some of our State legislatures.§ It may not be uninteresting to take a passing glance at this very convenient mode of untying this, so often, very inconvenient knot. Those who have "got in" to our Court of Chancery for that purpose, and are despairingly persuaded that they have got into the fire from the frying-pan, will lament their deprivation of

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* Chapter VI., Art. 134, Louisiana Code—229 Code Napoleon.

† Art. 137, Louisiana Code.

‡ Art. 145, Louisiana—Code Napoleon, Art. 268.

§ We perceive, by a very ably written article in the "Commercial Review," published in New Orleans, upon the subject of "Divorce," that, by a provision in the new Constitution of the State of Louisiana, no divorce can be granted by the Legislature of that State.—Ed.

such reasonable redress; and those who are trembling on the brink of the cavern, almost ready to leap into its capacious maw, may be led to the conclusion that a short sojourn in New Orleans would be much pleasanter, and more satisfactory.

Where the parties mutually seek the separation, the thing is accomplished without the slightest difficulty, and as a matter of course. But suppose the case—not a very violent supposition—of one of the parties being unreasonable refractory; and suppose, too,—not a very unnatural supposition—that that party is the woman. She is sent—her health requires it—poor thing! to France, or to the North; or perchance she is not there at all, and never has been there—the climate would never agree with her frail constitution—and her husband goes without her. He would not leave her, could he avoid it; but his *business requires it.* The petition is filed in court—the petitioner does not swear to it—he does not even sign it—his lawyer does it all. He has told his lawyer that he wishes to be separated from his wife by a good and valid judgment of a court of competent jurisdiction, and that his wife is out of the State—anywhere—in Bordeaux or Mirimachi. The petition declares that she has withdrawn from the common dwelling without lawful cause, and that she has constantly refused to return and live with her disconsolate husband; and then prays that, after *due proceedings had*, a judgment of separation be decreed in his favor, and that she pay the costs of the suit! And what are the due proceedings? Why, of course, proceedings "to make it appear" to the judge that she—wicked woman!—has refused to return to her husband's home and arms. Now, mark how ingeniously this is "made to appear." The 143d article of the civil code provides for it thus:—"The abandonment with which the husband or wife is charged must be made to appear by three reiterated summonses—(very much like those made by Charles Kean's horn-blowers before the walls of Angiers)—made to him or her from month to month, directing him or her to return to the place of the matrimonial domicil, and followed by a judgment which has sentenced him or her to comply with such request, together with a notification of such judgment given to him or her from month to month, for three times successively." But how is she to be summoned to comply with this demand, or notified of this judicial sentence?—and, being summoned and being notified, how quickly would she fly to her lord's embraces, and yield herself to the sentence of the cruel judge! All this is provided for as it is foreseen; the latter clause of the article does it beautifully:—"The summons and notification shall be made to him or her at the place of his or her usual residence, if he or she lives in this State; *and if absent, at the place of the residence of the attorney who shall be appointed to him or her by the judge for that purpose, at the suit of the husband* or wife praying for separation." Thus, upon filing the petition, in which it is represented that she is out of the State, (the only allegation in it, perhaps, which the petitioner would like to swear to,) Oily Gammon is appointed her attorney, to represent and defend her—the summonses are served upon him—the notifications are given to him. It is his duty to correspond with his fair client; to inform her of the proceedings had against her, and urge her compliance with her liege lord's wishes. He does write, and directs his letters where he is *informed she has fled*—to Siberia or Canada; and when the three summonses and the three notifications have all been duly served, he answers the petition, and tells the court that his client, so far

from returning to the matrimonial domicil, has even refused to acknowledge the receipt of his very polite and professional epistles. At this, the judge's patience is exhausted. He forthwith decrees a separation of the parties, and condemns her to pay all the costs of the proceedings, not forgetting a fee of one hundred dollars to Oily Gammon, attorney for the defendant, for his trouble in endeavoring to woo her back to the path of duty! ! There is still, to be sure, a *locus penitentiæ* for the wicked and obstinate woman. This is not a dissolution of the bonds of matrimony—it is only a separation from bed and board; and from the date of this judgment she has two years for repentance, and endeavors to find forgiveness for her offences, and a reconciliation with her injured master. Should she fail in this, (and it is for her husband to decide whether she shall fail or not, for there is no power to compel him to become *reconciled*, against his will, *in that manner* which it has been decided to be within the intention of the law,) then, at the expiration of that time, a divorce *a vinculo matrimonii* is decreed, as a matter of course, upon the mere filing of the petition, setting forth the previous judgment, and that no reconciliation has been had.

How different—how lamentably different is all this from the well-established policy of the common law, to preserve inviolable the sacred relation of husband and wife!—to impress upon society the solemn and indissoluble character of that contract which lies at the foundation of the well-being of a community; to erect about the conjugal relation barriers which may not be thrown down, nor easily overleaped; and, by the imposition of a salutary restraint, to teach and enforce the performance of the social duties. Compare the policy of the civil law, as evinced by the articles of the code, with that anounced by Lord Stowell, when presiding in the Ecclesiastical Court of England. "The policy of our law," (says that profound master of this branch of jurisprudence,) "is not that limited humanity which looks only at individuals: it is that real and extended humanity which regards the general interests of mankind. If it were once understood that, upon mutual disgust, married persons might be legally separated, many persons who now pass through the world with mutual comfort, with attention to their common offspring, and to the moral order of civil society, might have been, at this moment, living in a state of mental unkindness—of estrangement from their children, and in a state of the most licentious and unreserved immorality. In this case, as in many other, the happiness of some individuals must be sacrificed to the general and greater good. When people understand that they *must* live together, they learn to soften, by mutual accommodation, that yoke which they know they cannot break. They *become* good husbands and wives, from the necessity of *remaining* husbands and wives; for necessity is a powerful master in teaching the duties it imposes." *

It is gratifying to turn from this branch of the subject to that, the consideration of which was the particular design of this article—viz: the provisions of the civil law upon the rights and duties of husband and wife, on the subject matter of property.

It cannot be expected that a cursory review of this nature should enter at any great length into the details of a system which constitutes so large a portion of the civil code. Some of the general principles of that system

* Evans vs. Evans, 1 Consistory Rep., 33.

only can be noticed, by which the reader will perceive the fundamental differences between the civil and common law of this domestic relation.

The civil code regulates the conjugal association, in relation to property, in the absence of particular agreements, which the parties are at liberty to stipulate as they please, provided the stipulations be not contrary to good morals; be not in contravention of the legal order of descents in what concerns the inheritance of their children or posterity, or of their children as between themselves; and provided that such stipulations be made by an act before a notary and two witnesses.

The property of married persons, by the civil code, is divided into separate property and common property.

Separate property is that which either party brings in marriage, or during the marriage acquires by inheritance or donation to him or her particularly.

Common property is that which is acquired by the parties during marriage, in any other manner than by inheritance or donation.

The separate property of the wife is divided into *dotal* and *extra-dotal.* Dotal property is the dowry, or marriage portion, and consists of the effects which the wife brings the husband, to assist him in bearing the expenses of the marriage establishment. The extra-dotal property consists of the paraphernalia of the wife, which form no part of the dowry;—this is called the paraphernal property.

And first, as to the common property. Every marriage contracted in Louisiana superinduces a partnership or "community of acquets and gains" between the parties, if there be no stipulation to the contrary; and the same partnership in property exists by law between persons going there to reside who were married elsewhere, with respect to property acquired during their residence. Of this partnership, the husband is the head and administrator; but his disposition of the moveables or immoveables of the community is restrained within certain legal limitations. As in any other partnership, the debts contracted during marriage enter into the community acquets, and must be acquitted out of the common fund; while the debts of both husband and wife, anterior to the marriage, must be acquitted out of their own personal and individual effects.

Upon the dissolution of the marriage, by the death of either party, all the effects possessed by the husband and wife, reciprocally, are presumed to be community property, unless satisfactorily proved to be separate property; and upon such dissolution, the partnership property is divided into two equal portions, (the community debts being first paid,) between the surviver and the heirs of the deceased. If the wife be the surviver, she has the right of renouncing the community, if, during its existence, she took no active part in its administration. This renunciation must be made within a time limited, and with certain formalties. If not made, or if not made in good faith, or legally, judgment may be rendered against her as a partner; which can be satisfied from her individual, separate property, if the community property be insufficient.

As has been before stated, the partnership in property, of the husband and wife, exists in the absence of any agreement of the parties. It may be modified or limited by contract entered into with the solemnities required by law. In case it is stipulated that the partnership shall not exist, the wife preserves the exclusive and absolute control and administration of her moveable and immoveable property, and the free enjoyment of her

revenues. In case of such separation of property, each of the married persons contributes to the expenses of the matrimonial establishment in the manner fixed by the marriage contract; and, if no terms of contribution are there agreed upon, the wife contributes to the amount of one-half of her income.

Upon the decease of the husband or wife, his or her heirs, if of age, may demand the moiety of the community property belonging to the deceased. If they are under age, the surviver of the partnership, as the natural tutor or tutrix of the heirs, has the administration of the property during their minority; after which, he or she is liable to account for the faithful execution of the trust;—and, as security for faithful payment to the heirs of the full amount to which they are entitled, they have a tacit and legal mortgage upon the immoveable property of the tutor or tutrix.

If the wife be the surviver, and marry again, her second husband becomes co-tutor with her of the minor children of her deceased husband, if the advice of a "family meeting," duly called, in the manner prescribed by law, has been first obtained in the premises.

With regard to the separate property of the wife—and first, the paraphernal. All her property which is not declared to be brought in marriage by her—to be given her in consideration of the marriage, or to belong to her at the time of the marriage, is paraphernal. Of this property she has the sole administration, and may dispose of it as she pleases, of whatsoever it may consist. If she has allowed her husband to administer it, she may, at any time, withdraw it from his hands; and if, notwithstanding her opposition, he persists in its administration, he is accountable to her for all the fruits of the property as well those that exist as those that have been consumed. She has a legal mortgage upon the immoveable property of her husband, as security for the payment of whatsoever comes into his hands from such administration.

The dotal property or the dowry of the wife is her separate property, which she brings in marriage to assist in defraying the expenses of the establishment. Of this property, the husband has the administration. Whatsoever is declared by the marriage contract to belong to the wife, or to be given her on account of the marriage by other persons than the husband, is part of the dowry. During the marriage, dowry can neither be settled nor increased.

Of what the dowry may consist—by whom, and in what manner, it may be settled—how the parties are bound by whom the dowry is settled—when the interests of the dowry commence—how, by whom, and when the dowry may be recovered—are subjects provided for in great detail by the various articles of the code; but they may not be of sufficient interest to the general reader to justify the space which would be necessarily taken in their consideration.

The manner in which the restitution of the dowry and dotal effects of the wife *is secured to her*, is a subject of the greatest importance, as affecting the rights and interests of those who may become the creditors of the husband; and it is this subject to which the attention of the reader is particularly directed.

The 2,355th article of the civil code, provides that, "the wife has a legal mortgage on the immoveables, and a privilege on the moveables of her husband, to wit: 1st. For the restitution of her dowry, as well as for the replacing of her dotal effects which she brought at the time of her

marriage, and which were alienated by her husband—and this, from the time of the celebration of the marriage; 2d. For the restitution or replacing of the dotal effects which she acquired during the marriage, either by succession or donation, from the day when such succession devolved to her, or such donation began to have its effect." A *legal* mortgage is one which exists tacitly, without a written instrument, by mere operation of law.

The article 2,399, of the civil code, declares that "the wife may, during the marriage, petition against the husband for a separation of property, whenever her dowry is in danger, owing to the mismanagement of her husband, or otherwise, or when the disorder of his affairs induces her to believe that his estate may not be sufficient to meet her rights and claims."

Now, that the importance of these rights and privileges of married women, in Louisiana, may be fully appreciated by those who are, or may become creditors of their husbands, it may be well to *suppose a case* not only which *may* occur, but which is *very likely* to occur under the jurisprudence of that State. It would be hazarding little to say, that such cases are *by no means of rare occurrence.*

A young man, being about to enter into the bonds of matrimony, in New Orleans, resolves, at the same time, to go into commercial business in that city. The parents of his intended wife are *reputed* wealthy—how many such there are! The parties go before a notary public, and there a *marriage contract* is executed in due form of law. The intended wife brings to her future husband, as her dowry, which has been settled upon her, the sum of *twenty thousand dollars.* In the presence of the notary and the legal number of witnesses, this is actually paid into the hands of the future husband, as the wife's dowry. (It *may have been borrowed* for that purpose, for an hour or two, from some banker—but to prove this! *hoc opus est!*) All this is duly, and fully, and legally set forth by the notary in the marriage contract; the parties retire, and in due season the marriage is solemnized, and the husband goes into business. He goes North to purchase his goods—no man's credit is better than his—he has married a rich wife—she has brought him a handsome dowry—the marriage contract shows it—his credit is unlimited—his purchases are accordingly. But, poor fellow!—he soon becomes embarrassed. "His affairs are in disorder," owing to "his mismanagement, or otherwise," and the trembling wife "is *induced* to believe that his estate may not be sufficient to meet her rights and claims." She files her petition representing these facts—they are proved. The husband, poor fellow! does not deny them—he can't deny them—his conscience would not allow such a denial; and after due proceedings she obtains a judgment against him for a separation of property—for the twenty thousand dollars paid him as her dowry, which is in danger—and the payment of this judgment is *privileged*, as by article 2,355 of the code already cited, upon all the moveable and immoveable property of her husband; a privilege, which rides over all the claims of her husband's creditors—a pivilege, which absorbs all the property which her husband has purchased at the North, and which is barely sufficient to meet "her rights and claims," and defray the costs of the proceedings—so *improvided* has the young man been in the *management* of his affairs! All that the creditors, in such case, would get for their judgment against the husband, would be a dear-bought knowledge of the civil law of husband and wife.

## Art. V.—ORIGIN OF ATLANTIC OCEAN STEAM NAVIGATION.

TO THE EDITOR OF THE MERCHANTS' MAGAZINE, ETC.

In the Merchants' Magazine of December I notice some remarks upon the inscription on Capt. Roberts' monument, erected in Cork, with some observations upon the Savannah, and a letter, said to have been written by Mr. Rush, respecting a conversation with the captain of the Savannah.

As materials for history, it is important that facts should be directly recorded.

In the first place, it is not true that the Savannah was *built* as an ocean steamer.

In the second place, it is not true that she *ever did cross* the Atlantic by steam.

In the third place, it is not true that *she could cross* the Atlantic by steam—and therefore she has no claim to the credit of being the first steamer that crossed the Atlantic.

She was constructed with a view of selling her to the Emperor of Russia, for a coasting craft on the Baltic Sea, and in furtherance of that speculation proceeded from Savannah, touching at Liverpool, to St. Petersburgh. When that enterprise failed of success, her career as a steam vessel terminated—therefore it is manifest that she was not *built* for an ocean steamer.

2d. Soon after her arrival at Liverpool, I happened to be in Liverpool myself, and went on board of her, examined the machinery, as well as the vessel, and was then informed that she steamed six or seven days, which corresponded with the length of her passage, and was necessary to try and prove the efficiency of her machinery. At that time I had not the slightest idea of navigating the ocean by steam, nor have we any evidence that such an idea was entertained or broached by the public. It is worthy of remark, that Mr. Rush's letter of 1845, stating what the *captain told him*, that the engine worked horizontally, is not true in fact. I saw it: it worked at an angle of about forty-five degrees with the horizon; and therefore the captain, or Mr. Rush, or both, are in error in this particular, and the error throws discredit upon the man's statement that she *steamed eighteen days*, which I suppose must require very strong faith to credit. At all events, it is admitted that she did not steam *across the Atlantic.*

3d. The Savannah, if my memory does not betray me, had three masts, was completely rigged as a sailing vessel, and of small capacity—and if the statement of the captain, as recorded by Mr. Rush, be true, that she was only two hundred tons burthen, it is apparent to any one acquainted with steam navigation, that she could not carry fuel enough to steam her half across the Atlantic; and therefore the argument that she was not constructed for an ocean steamer is perfectly conclusive, because it was impossible for her to perform that duty; and that fact must have been as well known by any engineer before her trial, as after. With the power of sails her engine was carried over the Atlantic, but with the power of steam on board, the engine could never carry the ship across. No pretension was made in Liverpool, or in any other quarter, at that time, that she was designed for an ocean steamer, or that she either did or could cross the Atlantic by steam—and this fact goes far to show the absurdity of the claim now attempted to be substantiated. She was no more an

ocean steamer than the coasting craft which surrounded her in Liverpool, and the only point of curiosity was, that she stood before the public as an *American coaster*, and not a *British*.

It was not until *the Sirius made the first steam voyage across the Atlantic*, and excited universal enthusiasm, that the pretensions of the Savannah were obtruded upon the public notice, At the time of the Savannah's voyage, and up to 1832, no practical idea of navigating the ocean by steam was entertained or promulgated; and even at the latter date it was scouted on both sides the Atlantic as a wild, visionary, moonshine enterprise. I apprehend no valid evidence can be produced to show that the navigation of the Atlantic by steam-power was ever contemplated or deemed practicable until 1832, when the project was first submitted to several eminent merchants of New York, and declined by them, with the ever memorable characteristic declaration, "Go back to London, and if you form a company there, and succeed in the enterprise, we will come in and join you." It was upon the strength of that assurance that the company, when formed in London, was called the British and American Steam Navigation Company—the design being to form a union of British and American steam-ships in one line. The commercial crisis in the United States frustrated that design.

Although the monumental epitaph of Capt. Roberts is a strong proof of domestic affection, yet, as a public record, it would be in danger of conveying erroneous impressions to the future historian, if he had no other evidence and no other material from which to construct his story for posterity.

Capt. Roberts was an able and scientific navigator, but had no part in originating and bringing into action the enterprise. On the contrary, he was wholly unknown to the directors of the company, until he was called upon to take command of the Sirius. These facts are too well known to be controverted. The Sirius, and the Sirius alone, solved the great commercial problem of navigating the ocean by steam-power; and so far as credit is due to the commander of the first steam-ship that ever crossed the Atlantic by steam, Capt. Roberts is undoubtedly entitled to that credit.

The true character and comprehensive results of ocean steam navigation were not disclosed, until the successful experiment of the Sirius drew aside the veil, and revealed the prospective advantages which hung upon the skirts of the future. The popular mind was in a vein to jeer and ridicule what was esteemed a chimerical and preposterous speculation, and by no means prepared for the triumph of a new system of navigation, which was to disperse the old. The prophetic current of the public sentiment was on the side of failure, and scarcely a man could be found whose doubts did not outweigh his expectations. Those who did not ridicule and sternly oppose every step of the undertaking, stood aloof—they lent no countenance or support to a *scheme*, as the Duke of Wellington called it, which, in his judgment, was calculated only to disturb the established usages of the country—although it pointed directly to extension of commerce, the augmentation of the naval force of the empire, and the wealth of nations.

I subjoin the note of the Duke of Wellington on this subject, because it is characteristic of the man, and because it shows, in a strong point of view, the light in which steam navigation was regarded at that time, by gentlemen of the highest standing:—

"F. M., (Field Marshal,) the Duke of Wellington, presents his compliments to Mr. Smith. The Duke has no leisure to receive the visits of gentlemen who have schemes in contemplation for the alteration of the public establishments.

JUNIUS SMITH, Esq."

The victory, therefore, achieved over so great a mass of prejudice, of co-ordinate interests and combined disparagement, was the more signal, seeing it was not gained by statesmen and politicians, by the wisdom of the learned, by the patronage of noble and aristocratical influence, by the stirring spirit of republican genius, or the preponderating weight of commercial opulence, more apt to follow than to lead. The domestic and foreign relations of the country, the post-office, the army and navy, the merchants and manufacturers—every man who had a country to defend, a letter to write, or a bale of goods to ship, turned, as if by an instinctive impulse, to the luminous prospect which brightened the horizon. Those who lectured the loudest, and demonstrated to the satisfaction of their listening auditors that it was impossible to navigate from Portsmouth to New York by steam-power, saw the result falsified their theories, and that no alternative was left but an absolute denial of the fact that they had ever made any such declarations—a denial confronted by the evidence of too many living witnesses to gain a moment's credit. The new and rapid means of international communication was fully appreciated. The attention of government was, for the first time, awakened to the practical importance of the new system of navigation, and the extent to which it must inevitably lead. The old mode of transporting the mails, by gunbrigs and private merchantmen, was to be displaced by the Cunard line. The Royal West India line, and projects for steam communication with the East Indies, by the way of Good Hope, subsequently abandoned for that of the Mediterranean, followed in close proximity.

Whilst this expression of public sentiment was in vigorous action in Great Britain, the continent of Europe was no less agitated by the revolution which had been achieved by individual efforts. The mighty sea of public opinion, which rolled its irresistible tide over the centre of commercial influence, was not restrained by its banks; but, bursting away from its primary limits, swept over the States of continental Europe with equal force. Kingdoms clapped their hands, and nations followed the train of events. France, Germany, and Belgium, in particular, since the ratification of peace upon the downfall of Napoleon, had been indefatigable in their struggles to establish manufactures, to introduce machinery, and to rival Great Britain in foreign and domestic markets. But they had much to learn. It was no easy matter to supersede England in her great and matured manufacturing establishments. The success of steam navigation appalled and held in check the growing enterprise of the continental States. It was manifest, that if merchandise could be transported to the American market in fifteen days, the comparatively slow movement of sailing ships, requiring forty or fifty days to accomplish the same thing, must inevitably forestall the American market, and leave the continental manufactures far behind her rivals in their commercial career.

France, strong in purpose, but weak in execution, planned and published a comprehensive synopsis, embracing some of the most prominent commercial ports in the West Indies, North and South America, as the basis of her commercial steam-marine. But the whole project gradually died away in the obscurity of night. Not a single ocean steamer was then, or

has been since, fitted out by France for commercial purposes. But she clearly recognized the power of steam as the means of strengthening her naval marine, and directed her whole force to build up a steam navy that would place her upon a more equal footing with her great rival. In this, for a short time, she succeeded, and shot ahead of Great Britain in the strength and power of her steam naval armament; but England, watchful of every movement, was not to be deluded or overreached by commercial pretensions—she saw the object, and applied her superior skill to the construction of larger and more numerous naval steamers, until she stood as much before France in steam as she had before in sailing power.

Belgium made an unsuccessful attempt to share in the advantages of steam commerce, which she did not want the sagacity to perceive—but she had neither genius, nor engineering skill, nor capital, adequate to so great an undertaking, It fell by its own gravity.

England had all three, and, rapidly extending her commercial marine, monopolized the steam commerce of the world. She still holds that monopoly. Not a seaport, foreign and colonial, that is not drawn within the scope of her steam navigation opportunities. Her commercial policy of seizing, adopting, and carrying out every invention and every improvement which the genius of man spreads before her, has placed her at the head of the commonwealth of nations. She upholds her supremacy by the best means of securing it, and compels, in a civil way, even Americans to come within the spreadings of her net-work.

The United States—what shall I say? I hardly dare trust myself to speak of my own country in reference to this subject.

We have the ability, the acquirements, and the means, in an eminent degree, to stand foremost in the race of competitors—but truth compels me to say, we want the enterprise even to place our name upon the list. The consequence is, the loss of a portion of our best trade, and the cheerless prospect that the remainder will soon follow. Foreigners have already engrossed almost the whole of the European importing business, and whatever profits were drawn from that source, are now cast into the lap of foreign manufacturers.

It is difficult to account for this extraordinary, apathetic, unnational delusion. It goes far to do away with the assumption of her commercial energy and progressive greatness; it rests upon the past and obscures the future. No more certain sign of declension in commercial vigor can be presented to the contemplation, than that of a nation falling back upon ancient usages, and throwing aside the improvements of the age. It is an anomaly in American history. It stands alone with a fearful augury. It seems to indicate a feebleness of purpose, the existence of which no one is willing to admit, and yet may find it hard to deny. The alacrity with which improvement in agriculture and manufactures are seized and appropriated, contrasts strongly with the rejection of improvements in foreign trade, that are, in the hands of others, undermining our national wealth. They—agriculture and commerce—ought to go hand in hand, as the interest of each is the interest of both.

Adventitious circumstances—as European wars, or short supplies of food—may give a temporary impetus to foreign commerce; but, as a general principle, superior tactics in navigation, as in all other things, must command and sustain an ascendancy in trade, and throw the less skilful and less enterprising into the rear of nations.

In 1839, I came out in the British Queen from London, the first voyage she made to New York; and with more assurance, perhaps, than the occasion would justfy, informed my friends that, barring accidents, to which all new machinery is liable, I would dine at my house in Sydenham, eight miles from London, on the 15th of August. We sailed from Portsmouth on the 12th of July, and arrived at the port of New York, Saturday, the 27th of July. After discharging, coaling, and receiving cargo, we sailed for London in the afternoon of the 1st of August. On the 13th of August we took a pilot in the English Channel, passed the Needles at daylight on the 15th, and ran up to Porstmouth. The branch railroad thence to London not being then completed, we embarked on board a small steamer for Southampton, and arrived there in the time for the London train. At four o'clock in the afternoon we were in London, distributed the New York journals for the press, and reached my house at Sydenham at six o'clock precisely, the regular dining hour, not varying one minute from the time specified previous to sailing from Portsmouth on the 12th of July. I was absent from London thirty-two days.

This showed, in the first place, a voyage completed to the United States and back, in less time than the average passage of the best sailing ships. In the second place, that time was doubled by being abridged. Fifteen days in steam commerce was equal to thirty occupied in sailing. The toil of half a man's life was compressed into the other half; so that, in effect, if a man labored twenty-five years, he availed himself of fifty. In the third place, it showed that commercial capital employed in foreign trade, was, through the agency of steam, rendered capable of carrying on double the commerce that was then carried on, or that half the amount of capital employed would suffice for conducting the same amount of business. Millions were created, applicable to foreign or domestic trade, seeing that whatever portion of capital was relieved from one employment, was ready to be applied to another. Answers to letters written to the merchants of the United States a month before, were received in England and on the continent of Europe by the same ship. Not only Great Britain, but all Europe, was stirred from the foundations, and looked with intense interest to the grand revolultion which was achieved. It was no longer a matter of doubt, or hypothetical speculation, but of undeniable evidence. The past was forgotten in present realization. Men looked forward to the prospective magnitude and practical importance of a new era in the affairs of nations—the approximation of States; the interchange of intellectual wealth; the extension of civilization; the facilities of commerce, and the concentration of our wide-spread race into one great Christian community. Everybody saw a fact was developed, fraught with portentous consequences to the political and social institutions of Europe. Indeed, the influence of mind is already distinctly seen, in the melioration of servitude, and the subdued tone of bigotry that tramples down the rights and the conscience of man.

The materials for thinking are accumulated, the activity of intellectual vigor strengthened, and the desire for the attainment of knowledge sharpened, in proportion to the facility of obtaining it. Thousands of cultivated and contemplative intellects saw, or thought they saw, in the signs of the times, traces of the approaching millennial period, when wars, and pestilence, and famine, shall cease to disturb the human family. Steam navigation, in conjunction with railroads, has given a mighty impetus to moral

energy, which no previous period has ever witnessed, and which plainly indicates the onward movement of corresponding events. It is remarkable, and ought not to pass away unobserved, that the eternal Jehovah, in His inscrutable economy, has reserved these mighty engines of moral and civil instruction, until the establishment and extension of innumerable benevolent societies, bursting away the barriers of local and ethical distinctions, seemed to call for their development. History and experience teach us, that success in great undertakings is often the punishment of the projector. But that is a risk, which every man who loves his country better than himself, or the advancement of society more than his own, must take. The world is wont to do least for those who do most for the world. Cotemporaries, as well as posterity, reap the harvest which others have sown; but the great end of Providence is answered, if the world be benefited.

Now, let any one of common sense ask himself the question, if all this effervescence of the public mind, which has been partially described, could have happened, if there had been any previous idea of the practicability of navigating the ocean by steam-power, much less if it had already been accomplished? Let him ask himself, if the pretence set up by the Savannah is not a manifest pretence, originating long after the death of the Savannah, and subsequent to the demonstration of a fact which gave birth to the assumption? J. S.

## Art. VI.—MINERAL RESOURCES OF MISSOURI.

### MINERALOGICAL OBSERVATIONS IN THE STATE OF MISSOURI, MADE BY DR. LEWIS FEUCHTWANGER.*

For mineral wealth, very few of the United States can excel the State of Missouri; and, judging from the developments made within the last few years, this State bids fair to vie, in valuable minerals, with both hemispheres; for, with the exception of the two precious metals, the gold and platina, most of the important and useful minerals and ores have of late been discovered, and worked with the fullest advantage to the miner. According to their intrinsic value, the following mineral substances may be enumerated:—Lead, iron, copper, cobalt, silver, nickel, zinc, and calamine, manganese and wadd, coal, rock-salt, barytes, sand, and quartz, carbonate and sulphate of lime, alumine and potters' clay, fullers' earth, variegated marble and oolite, saltpetre, and specimens of antimony, tin, tungstate of iron and lead, and diamonds, jasper, chalcedony, and felspar; gold, also, is said to have been found.

#### I. LEAD.

Having visited the various mining districts in Jefferson, Washington, St. Francis, and Madison counties, and examined on my way the mines of Mammoth lode, of Mr. Valle and Mr. Perry, around the town of Potosi, and Mine la Motte, and obtained a specimen of lead from Mine à Joe, it became manifest to me that they afford ample room for a scientific and economical investigation; for although since their discovery (1715) lead

* Read before the New York Lyceum of Natural History.

has been dug out by the French settlers, yet it was never worked to advantage until the last ten or twelve years, since which time it has proved highly lucrative, and has assisted to develop other metallic veins; so that, at the present day, this State is capable of supplying almost the whole world with lead. The geologist will find that nearly all the metallic veins run from northeast to southwest, while the mineral beds or patches lie further west; that is, the same direction exists in all, beginning with the valuable mines on the Merrimac, (Virginia mines,) the Ridgwood's, the Mammoth, Perry's, Valle's, Mine à Joe, Mine la Motte, as far south as Perryville, all of which have regular veins, of six to eight inches in thickness, and from ten to twelve feet in width, while the extensive mining district around Potosi consists mostly in float mineral. In the first instance, shafts to the depth of one hundred and ninety feet have (Valle's) been dug, while in the latter, the mineral has never penetrated more than fifty feet.

For about seventy miles, the rocks and hills are very lofty, (as at Bolduc's and the Mammoth mines,) and abound in the crystalline quartz, the shape of which is quite characteristic in this part of the country, (at a distance of about sixty miles from St. Louis.) It is, throughout, a drusy quartz, very beautiful to look at, sometimes cellular and mammillary, or in the shape of cauliflowers, and attached to chalcedony, and varies in size from a few inches to many feet. The rocks, themselves, below the quartz, are composed of—1, the cliff limestone, a compact magnesia limestone, (equivalent to the Niagara limestone,) and—2, a white compact sandstone, (equivalent to the Potsdam sandstone of New York,) which is the geological position of the lead district. This cliff limestone contains no fossils, is amorphous, and contains about 50 per cent of lime, and 40 per cent of magnesia; but a chrombic, crystallized carbonate of lime, I have seen associated intimately with the lead at Valle's mine. In many places, where the sandstone and the cliff limestone do not accompany the lead, sulphate of barytes may be seen in great abundance, forming either the gangue, or the veinstone, and is not alone the guide for the miner in "prospecting," (a term used in discovering mineral locations,) being in many places intimately mixed with the lead ore; but also in several counties, such as in Jefferson and Washington, whole mountains and large surfaces are composed of the barytes, which, at some places, is of dark collar and coated by oxyde of iron, but again, in other places, forms large deposits of the very whitest semi-crystalline compact mineral, such as I have brought specimens of, and presented to the society from Jefferson county, being of a brilliant white color.

The lead found in this State, is either a carbonate, and passes under the name of *drybone*, or a sulphured, called, generally, galena, but here it passes by the name of *blue mineral;* the first is found in great quantities at Mine la Motte and Perry's mine, and the attention of the miner and smelter has only been drawn to it since the last ten years. It having always been considered a *tiff*, (a term used for either carbonate of lime, barytes, or flourspar,) it was thrown aside as worthless, until a German miner, who settled at Mine la Motte, bought up several millions of pounds for a trifle, and reduced it by means of a high blast furnace; from that time their eyes were opened, and it has attracted the attention ever since of all the miners in the State, and on account of yielding more lead than galena, (it yields 72 per cent pure metal,) it is now the principle material for smelting. The blue mineral, or galena, occurs mostly massive; but

in some mines, such as Perry's and at Potosi, it appears in cavities or fissures, and crystallized in the original form of a cube. I possess crystals of three inches in diameter, obtained among the patch mineral, for no crystals are obtained at any depth, nor in any regular vein, except at Rozier's mine at Perryville; the vein is four feet in thickness, and contains all the mineral in a crystalized state; this mine is situated at the most southern extremity of the lead district. The quality of the blue mineral, according to locality, varies in richness, which appears to diminish on going to the southeast, while it increases from the northwest. If we begin with the per centage of the lead from Wisconsin, it yields, according to Dr. Owen, 84 per cent; that from Potosi, yields from 70 to 80 per cent; that of Mine la Motte does not exceed 66 per cent. The difference of per centage affects, at the same time, its commercial value; for the lead smelters at Potosi pay $18 for 1,000 pounds of the blue mineral, while those at Mine la Motte pay but $10 for 1,000 pounds of the same mineral. Likewise, the difference in the quality is, according to the latitude, distinctly observable; for, at St. Louis, the Illinois lead was worth, while I was there, $3 75 per 100 pounds; that from Potosi, $3 50; and that from Mine la Motte, but $3 37 per 100 pounds. The lead from the upper mines, which includes that from Potosi and neighborhood, stands generally highest, being of very soft and pure nature, while Valle's lead is known to be hard; which I can only attribute to its containing zinc, which is found intimately mixed, and which, probably, although in small portions, enters into its composition; while that from Mine la Motte is considered still more inferior, probably owing to some copper, which it more or less contains, and is carried over mechanically in smelting, and by that means deteriorates it. The drybone appears to be more abundant at Mine la Motte, for I perceived the same, heaped up and under operation, at nearly all the washing establishments. There are one hundred and fifty persons engaged here in digging the mineral; each miner is entitled by a lease to one lot of forty feet for each hand he employs. It is mostly found in patches of from forty to sixty feet, without any regular vein, and may at once discontinue: but when found in a thick stratum, it forms the upper crust of the blue mineral at about twenty feet from the surface, above the regular gangue of the cliff limestone, and not unfrequently in connection with the black oxyde of cobalt, which, again, forms the roof of the drybone. On examining one of the diggings, called the golden vein, I observed, for twelve feet from the surface, a red, ferruginous clay; the next twelve feet, an ochre, containing considerable manganese ore; and three feet further, a calcareous chert, or green slate, between which, was a layer of about six inches in thickness of drybone, and below the slate a regular deposit, from three to four feet in thickness, of the blue mineral; below that an ochre of twelve feet thickness, and then another layer of the blue mineral, the bottom of which is again the cliff limestone, which forms invariably the receptacle of the blue mineral; the same limestone contains also copper ore, sulphuret of cobalt, and sulphuret of nickel.

There are yet a great many miles square belonging to the public lands which contain lead, and many a poor man, if hard pushed, goes out *prospecting* for lead, and has no difficulty in finding it. About six miles from Potosi, in Washington county, I perceived an immense area, containing barytes on the surface, and about one hundred pits from four to six feet deep, which were all excavated and the lead taken out from them. But

the lead mines are mostly owned by companies, or wealthy land-owners, or such persons as possess a furnace; they lease the mineral lands for a bonus of 10 per cent of the crude mineral. I perceived around Potosi a number of such lease patches, and on one, probably a rich spot, I saw a lock and key on the shaft, and a number of black and white men engaged in raising the ore upon their leases, which they hold as long as mineral can be produced. At Mine la Motte, however, the arrangement between the proprietors and lessees is altogether different. Here, the latter have to pay the 10 per cent from the metal, or any other mineral of a current commercial value, and no crude mineral is permitted to be taken off the premises. Of course this regulation has of late become very onerous; the various minerals discovered there, such as copper, nickel, sulphuret and oxyde of cobalt, either from want of materials or of means, have not been made as lucrative to the miner as they would be if they were allowed to export the ores to Europe.

Before the mineral is purchased or received at the furnace, it is properly washed and selected by means of the washing establishments or shaking apparatus, by which the ore is separated from the rock. Large troughs, or tubs, of about six feet square, contain large metallic sieves fitted in them, to which are attached some cranks that keep the square sieves shaking the ore while they dip them in the tubs containing water. In this operation, which lasts but fifteen minutes, all the minerals, if small enough, fall through, and are deposited on the bottom; the larger minerals remain in the sieves. In both, the rocky and other minerals, as well as the ore, will fall down according to gravity; the blue mineral will be deposited first, then the drybone, then the cobalt, and the lightest is the rock. After the mineral has been assorted, it is ready for disposal or for smelting, and no mineral is easier reduces than the ores of lead. The drybone is reduced in a shaft, or blast furnace; the air being thrown into the furnace by a fan-blower of a ten-horse power engine, and a small addition of the oxyde of iron, whereby the carbonic acid of the drybone is transferred to the iron, forming a carbonate of iron, and the lead runs out pure. The blue mineral is reduced in a Scottish, or short furnace, with the addition of charcoal and a little lime; and by means of a strong blast, after a few hours the metal is softened, and runs out in a large cauldron, from whence it is poured out in pigs of from 60 to 70 pounds. The slags from the lead contain still from 5 to 8 per cent, which are melted over in a slag furnace. The lead so obtained at Mine la Motte and other places in the State of Missouri, contains a small portion of silver, which has latterly attracted the attention of English capitalists, who have, within a short period, purchased more than 1,000,000 pounds of the lead, in pigs; and although 100 pounds of the lead contain but half an ounce of silver, have, nevertheless, extracted from that quantity 350 pounds of pure silver, equal to $5,600, and reducing the value of the lead over half a cent per pound. After putting the lead in its former shape, it commands the same price as when first imported.

The process for extracting the silver, is called the crystallizing process, is very simple, and attended with little expense. It is performed in the following mode:—The argentiferous lead is melted in cast-iron pots; and, when perfectly fluid, the fire is removed, and the draught-holes closed tight. After a little while the lead mass is stirred by means of an iron bar. The lead is now forming into small crystals, which are all gradually removed

by means of a ladle. This operation is continued till two-thirds of the lead according to the quantity of silver contained in the mixture, has been taken away. The silver is now remaining, and may be refined by the cupelling operation. The lead thus drawn off, contains but traces of silver mechanically adhering to the crystals of lead. For this proof of obtaining all and any quantity of silver contained in the lead, the loss of the latter is but 2 per cent.

The quantity of lead produced in the State of Missouri, is very considerable. Not less than 9,000,000 of pounds were, in 1846, brought to market; and if we consider that 3,000 pounds of pig lead are produced every eight hours, (as Mr. Perry assured me he produces in his furnace;) that twenty furnaces are capable of bringing such a quantity to market; while this State, in eight years, (from 1825 to 1832,) did not furnish over 5,000,000 of pounds, at the present price of lead, the above 9,000,000 are valued at $315,000.

## Art. VII.—THE LEAD REGION.

The lead region of the Mississippi occupies not far from one hundred square miles. The two principal towns are Galena and Dubuque, which are both handsome and flourishing. The original possessors of this land were the Sac and Fox Indians, who used to sell to the white settlers on the frontier the ore which they often found upon the surface of their soil. The first white man who went into the mining business, (which was on a small scale,) was Dubuque. He was supposed to possess a cure for the bite of the rattlesnake. He became a great favorite with the Indians, and for a long time was the only man not of their blood whom they would suffer to live upon their soil. After his death, they placed him in a leaden coffin of their own manufacture, and buried him on the picturesque bluff which bears his name; and after this, they destroyed every vestige of his property.

In process of time, extravagant mineral stories were circulated throughout the country, and the general government purchased the Indian El Dorado of its possessors. The first man who went into the mining business at Galena, after the country had become our own, was Col. Richard M. Johnson. Since that time, thousands of people, on various occasions, have made and lost money in the mining business, which, from the very nature of the case, is in reality a perfect lottery. Lead—lead, is the burthen of everybody's song—and the quantities that are shipped to St. Louis are truly immense. But a man may dig until doomsday, without finding a *lead*, and consequently die a beggar—while another, in a few months will realize a fortune, upon which he is too apt to retire, and squander at the gaming table, so that you also soon find him an idler, and in want. One individual I have myself known, who came to Galena with $500, and having labored with unceasing industry for about three years, and expended his little fortune, when I saw him, had not the means to purchase a loaf of bread, and was utterly without employment. Notwithstanding the liberal mining regulations of the government, the fates were against him, and he was compelled to give up his mineral dreams in despair. Another individual, whom I saw at Galena, was remarkably fortunate in his operations. A little more than a year ago he commenced

digging a certain hill-side, and the first thing he knew, his spade struck against a solid mass of ore. He was encouraged, and proceeded in his excavations, and, in the course of a single year, he sold a sufficient quantity of 80 per cent ore to amount to the sum of $23,000. His mine is still yielding quite abundantly, and as it is probably the best in this region, I will describe it in a few words.

After descending a shaft of some eighty feet in depth, you find yourself in the centre of an immense cave, with chambers leading in various directions. The walls and ceilings are mostly of pure sand, excepting where an occasional solid mass of native lead glistens like silver, or gold, in the torch-light. Square blocks of the ore, weighing from half a pound to one hundred, all lie as accurately dovetailed together, as if placed by the hands of a master-mason. While looking upon these singular masses, I could hardly banish the thought from my mind, that we were in view of treasures that had been hidden here in those days when giants inhabited the world. When my curiosity was fully satisfied, I seized the rope, and with a palpitating heart passed upward out of the bowels of the earth into the pleasant sunshine.

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# JOURNAL OF MERCANTILE LAW.

PRINCIPAL AND FACTOR—CONSIGNMENT—ADVANCES—SALE.

In the Court of Common Pleas of England, June 11, and July 6, 1846. Smart *v.* Sand.

Where A. consigned goods to B., a factor, for "sale and return," and directed B. not to sell them below a certain price, B. being in advance on account of said goods, gave notice that if the advances made by him were not repaid, he would sell the goods to repay himself, and he did sell them accordingly below the price limited by A. *Held*, in action brought by A. to recover the amount at which the goods had been limited, that the factor had no right under the circumstances, to disobey the plaintiff's orders, and that he was liable for the balance.

This was an action of assumpsit, brought to recover of the defendant, a corn factor, the value of a cargo of wheat, consigned by the plaintiff to the defendant for sale. The declaration set out the consignment, and the order of the plaintiff not to sell below a certain price, and averred the violation of the order on the part of the defendant. The defendant pleaded that he was the factor of the plaintiff; that he was under advances to a large amount to the plaintiff, on account of said cargo of wheat; that while so, he gave notice to the plaintiff that these advances must be repaid, and if this was not done, defendant would repay himself for said advances out of the proceeds of said cargo, averring that the cargo was sold at the highest market price, and produced less than the amount advanced. For a further plea, the defendant pleaded that he had a lien as factor, on the cargo consigned to him, in respect to the advances he had made to plaintiff.

There were other pleas, not necessary to be inserted here, to show the grounds of the opinion of the court. To these pleas there was a general demurrer, assigning *inter alia* for cause, that if the defendants meant to insist that the advances gave them a subsequent authority to disobey the plaintiff's orders, such authority should have been pleaded as the result of an express agreement, and not have been left as an inference of law; and also, that the plea was an argumentative traverse of the promise, and amounted to the general issue.

In support of the demurrer, it was insisted, that as the factor's power of sale was not coupled with an interest, he had no right whatever to disobey the plain-

tiff's orders. The defendants may have a lien for their advances, yet this would not give them authority to sell.

On the other side, it was contended that, in certain cases, when the factor has made advances, after he has given notice to the principal, and those advances are not repaid, there is an implied authority in law to sell without the assent of the owner. To sustain this position, Story on Agency, 331. was cited and relied upon. The opinion of the Supreme Court of the United States in Brown *v.* M'Gran,* delivered by Mr. Justice Story, was also cited. It was contended also, that where advances have been made, the factor's power becomes enlarged, and the consignment becomes a security for the money advanced.

Coltman, J., delivered the judgment of the court.

Let us first inquire, what are the relative positions of a principal and factor for sale? From the mere relation of principal and factor, the latter derives authority to sell at such time, and for such prices, as he may, in the exercise of his discretion, think best for his employer; but if he receive the goods subject to any special instructions, he is bound to obey them, and the authority, whether general or special, is binding. This was not denied; but on the behalf of the defendants, it was contended, that where a factor has advanced money on goods consigned to him for sale, the authority to sell is irrevocable, because it would be coupled with an interest. That may be true; but it was incumbent on the defendants to maintain also, that on the failure of the principal to pay such advances within a reasonable time after demand, the authority of the factor was enlarged; and that he had an absolute right to sell at any time for the best price that can be obtained, without regard to the interests of the principal, and without regard to the nature of the authority originally given to him. No case was cited in which this point appears to have been decided in any English court. In Warner *v.* M'Kay, (1 Mee. & W., 591,) it was incidentally mentioned; and, as far as any opinion of the judges can be collected, from what passed, it would seem that Parke, B., thought that a factor might sell to repay himself advances, and that Lord Abinger was of a different opinion; and certainly there is nothing there decided that can be treated as an authority for our guidance in this case. But we were referred to a passage in Story's Law of Agency. In the chapter on the Right of Lien of Agents, he says, (s. 371,) "In certain cases, where he has made advances as a factor, it would seem to be clear that he may sell to repay those advances without the assent of the owner, (*invito domino,*) if the latter, after due notice of his intention to sell for the advances, does not repay him the amount." For this is cited a decision of the Supreme Court of Massachusetts, which refers to the case of Pothonier *v.* Dawson, (Holt's N. P., 383.) The latter was not an instance of goods placed in the hands of a factor for sale, but of a party in whose hands goods were deposited to secure the payment at the time agreed upon, of the money lent; in which case Gibbs, C. J., said, "Undoubtedly, as a general proposition, a right of lien gives no right to sell the goods; but when goods are deposited by way of security to indemnify a party against a loan of money, it is more than a pledge. The lender's rights are more extensive than such as accrue under an ordinary lien in the way of trade." And he proceeds to say, that "from the nature of the transaction, it might be inferred that the contract was, that if the borrower failed to repay the money, the lender might sell to repay himself." We were also referred to Story, on Bailments, chapter v., "On Pawns and Pledges," (§ 308,) where the rule of law is said to be, that if a pledge is not redeemed within the stipulated time, by a due performance of the contract, the pawnee may sell it in order to have his debt or indemnity."

But the relation of principal and factor, where money is advanced on goods consigned for sale, is not that of pawner and pawnee, as they are delivered for sale on account, and for the benefit of the principal, and not by way of security or indemnity against the loan, though they operate as such, the factor having a lien upon them, and upon their proceeds, when sold to the amount of the claim against the principal. The authority of factors, whether general or special, may

* 14 Peters, 480.

become irrevocable where advances have been made; but there is nothing in this transaction, from which such a contract as described by Gibbs, C. J., can be inferred; and the defendants were bound to prove a contract, if at any time the goods were to be forfeited, or the authority to sell enlarged, so as to enable the factors to sell at any time for the repayment of the advances, without reference to its being for the interest of the principal to sell at that time and for that price. Nor can we find any principle in law by which, independently of the contract, such authority is given. On these grounds, it appears to us, the third plea is bad in substance. It is unnecessary to consider whether the authority thus supposed to be given to the factor, is to be construed as an enlargement of his original authority by some rule of law, or as arising from some implied condition annexed to the original contract. In either case, it would be very doubtful whether they should not be treated as identical. The contract laid in the plea, therefore, sets up a defence which amounts to the general issue. For the reasons we have above given, we think the third plea is bad, and the other special pleas are open to the same objection; and our judgment must, accordingly, be for the plaintiff.*

Judgment for plaintiff.

## COMMERCIAL CHRONICLE AND REVIEW.

COMMERCIAL LEGISLATION—THE SUB-TREASURY—SCARCITY OF AMERICAN COINS—IMPORTANCE OF A SOUND NATIONAL COINAGE—UNITED STATES GOVERNMENT STOCK PRICES—TREASURY NOTES—LEADING FEATURES OF THE BANKS OF BALTIMORE, BOSTON, NEW ORLEANS, AND NEW YORK—EXPORTS FROM THE PORT OF NEW YORK—PRICE OF FLOUR IN NEW YORK, AT THE CLOSE OF EACH MONTH—EXPORTS OF CERTAIN ARTICLES TO GREAT BRITAIN—RECEIPTS AND EXPORTS OF FLOUR AT NEW ORLEANS, BALTIMORE, PHILADELPHIA, AND NEW YORK, 1845, '46—RECEIPTS OF PRODUCE AT CLEVELAND, OHIO, IN 1841, '42, '43, '44, '45, '46—OHIO CANAL TOLLS 1842, '43, '44, '45, '46—SHIPMENTS OF FLOUR AND WHEAT FROM MICHIGAN—RECEIPTS ON NEW YORK CANALS AT TIDE-WATER, ETC., ETC.

THE year 1847 has commenced its career under singular circumstances. The radical principles in relation to commercial legislation, which were, through the ascendancy of the Democratic party, forced upon Congress, have been put in practical operation, and mercantile affairs have been slowly accommodating themselves to the new state of things. The position of the foreign market has been such as to promote external commerce, and the reduced tariff, which came into operation December 1, 1846, has favored the entry of a larger quantity of goods in return for enhanced exports. This state of affairs naturally produced a larger revenue to the government at a time when the Independent Treasury law required the collection of that revenue to be made in specie only; and the natural aversion of all classes, the mercantile, particularly, to innovation, was heightened by the extent of the operation of the Treasury Department under the new law. The Sub (or Independent) Treasury law required, after the 1st January, 1847, the receipt of specie, or government liabilities only, in payment of government dues. Had there been none of the latter in circulation, specie would have been required for the whole amount of duties. The law of July, 1846, authorized a loan of $10,000,000, either in Treasury notes or a ten years' stock. Of this amount, one-half, or $5,000,000, was issued in the shape of Treasury notes, bearing in-

* The above case is taken from a number of the "Jurist," a legal periodical published in London. It is gratifying to the American lawyer, to find Judge Story's opinions frequently cited with great approbation in the argument of cases reported in this journal. We are also pleased to see that the intrinsic merits of Mr. Phillips' Treatise on Insurance, have made his book very respectable authority in Westminster Hall.—*Penn. Law Journal.*

terest one-tenth of one to five and two-fifths per cent; and in November, the balance of the loan was taken in a 6 per cent stock, at ten years, at a little over par. The advantage of borrowing on a stock, is, that it shoves the payment ahead, and makes the Treasury easy, as far as it goes, for the present. Notes, on the other hand, enter into the currency, and add to the circulating medium, at the moment of issue, instead of diminishing it; they, however, by returning to the Treasury rapidly, deprive the government of its present cash means. On the first of January, when the Treasury law came into operation, there were outstanding of these notes, $3,933,250, and of old notes, $377,531, making $4,310,781. The notes were mostly in the hands of the banks, which had gradually bought them up, anticipating a demand for them, instead of specie, to meet custom-house dues. Accordingly, the payment into the custom-house appear to be in Treasury notes for large sums, and specie for small ones. The scarcity of American coins adds, however, greatly to the difficulty of counting and paying over specie by those unaccustomed to it; and many display their ill-temper by paying in small American coins—dimes and half-dimes—a process which requires great labor and considerable time. These are, however, the little vexations which must necessarily attend the first workings of a new system. The labor and apparent inconvenience which attends the first use, by the public, of specie in large sums, naturally makes the system that requires it, to a certain degree, unpopular. The condition in which the specie currency remains, is of itself evidence of the extreme necessity of some great struggle to correct it. The fact that, in the seventy-first year of our existence as a nation, the currency of the country, instead of national coins, consists almost altogether of foreign coinage depreciated 16 to 20 per cent, and productive of great evils, is sufficient evidence that there has been wrong management heretofore—that, through some neglect or misuse of its powers, Congress has failed to "regulate" the currency which commerce has furnished for the use of the country. A sound national coinage is of itself the only firm basis for a healthy credit system. With the channels of circulation well filled with national coin, a broader and sounder fabric of credits can be reared, than can possibly be the case when, as heretofore, the whole paper system has reposed on depreciated foreign coins packed for export; and a sparse circulation of worn and clipped pieces from foreign mints feebly co-operates with the credits of institution. The importance of this has frequently led to a general recoinage in England and France, where national pieces are no longer a legal tender when worn below a certain weight. But a few years since, all the light gold coins of Great Britain was called in. To remedy existing evils, a great effort on the part of the people, as well as the goverment, is necessary; and the co-operation of a mint in New York seems to be indispensable. The demand of the government for a new loan of $20,000,000, had the effect of inducing capitalists to husband their means in the hope of obtaining it on favorable terms, while takers of the loan of 1856 were induced to sell. The following is a table of quotations for United States government stocks, at various periods of the year:—

PRICES OF UNITED STATES GOVERNMENT STOCKS.

| | January 1. | April 4. | December 1. | January 16. | January 22. |
|---|---|---|---|---|---|
| 6 per cents, 1862, | 108¼ a 110 | 110¼ a 110½ | 102 a 103 | 100 a 100¼ | 101 a 101½ |
| 6 " 1856, | — a — | — a — | 100¼ a 101 | 96¼ a 97 | 98 a 98½ |
| 5 " 1853, | 100 a 100½ | 101½ a 102¼ | 93¼ a 93½ | 90 a 91¼ | 91 a 92 |
| Treasury notes, 1 to 5 2-5, | — a — | — a — | 99¼ a 100 | 99¼ a 100 | 99¼ a 100 |

Just before the breaking out of the war, in May, stocks were in demand and rising. A 6 per cent stock, which was worth in April 110, would bring, January 16, but 97; while the Treasury notes bearing but a nominal interest, are in demand at par, as a currency for custom-house uses. The value of government securities has been depressed by their prospective abundance. The war has not, however, tended, in any degree, to check the operations of commerce, or materially interfere with financial or mercantile operations. The means adopted by Congress to raise the money required, partake closely of the nature of paper money, and have so far influenced the value of the stock, as to cause them to rise 2 per cent. The law of July, 1846, authorizing the issue of notes at a rate of interest not exceeding 6 per cent, made them redeemable within the year, and receivable for all government dues; and a new law authorizes the issue of $23,000,000, in denomination as low as $50. at a rate of interest not to exceed 6 per cent, and not to be sold under par, to be reimbursed in one or two years, and be fundable on presentation in a 6 per cent stock redeemable in twenty years. A peculiarity of the new law is, that it pledges the proceeds of the public lands for the redemption of the principal, and payment of the interest, on the new loan; and it is made the duty of the Secretary of the Treasury to apply any surplus receipts from the lands, above the amount of the interest, to the purchase of stock at the market value. The debt, including the loan of 1856, is about $27,000,000, and the new loan of $23,000,000 will make $50,000,000, on which, the annual interest will amount to about $3,000,000, which is near the sum of the proceeds of the public lands for last year. The progress of business will probably swell the ordinary revenues above the usual peace expenditure of the government, and the extent of the public income from all quarters will doubtless suffice to keep $28,000,000 of Treasury notes at or near par, more especially that quantities will be taken up in internal exchanges, and most of the small denominations absorbed in private investments. Should they fall below par, they will always be worth the value of a United States 6 per cent stock, twenty years to run; and the provisions of the law, by appropriating the proceeds of the public lands for the payment of the interest and ultimate redemption of the stock, settles the vexed land question for a at least twenty years to come. Large quantities of the public domain will be absorbed as military bounty lands. How far that will effect sales of land, is a problem for time to solve. The probability is, that it will not diminish them much, if any. The abundance of Treasury notes, and of small denominations will render nugatory the specie clause of the new Treasury law, and perhaps, as a matter of state policy, no plan could, at this juncture, have been better devised as a means of creating a demand for, and supporting, the government securities. Under the old law, Treasury notes were never resorted to for custom-house purposes, unless the discount on them was so great as to make the saving an object. Under the present law, *par* is readily given as a matter of convenience. It is obvious, however, that, unless the notes can be maintained at par, the ability of the government to pay them out ceases; and an abundant issue may suddenly result in an absolute loss of revenue, the receipts being all in notes too depreciated to be again put out. The notes assimilate very much to government paper money, and it is a trite saying, that such resorts are "strength in the beginning and weakness in the end." It is, however, true, that paper money is an admirable mode of imposing a war tax, and probably falls more equally on the whole people than in any other form.

The following table indicates the position of the banks of four leading cities at their latest returns, as compared with the same time last year:—

LEADING FEATURES OF THE BANKS OF FOUR CITIES, IN NOVEMBER.

| | Loans. | Specie. | Circulation. | Deposits. |
|---|---|---|---|---|
| **1845.** | | | | |
| Baltimore | $9,677,773 | $1,885,336 | $1,856,641 | $3,167,180 |
| Boston | 30,945,887 | 2,773,980 | 5,929,248 | 8,809,536 |
| New Orleans | 7,112,541 | 6,162,080 | 2,555,896 | 7,334,173 |
| New York | 44,163,470 | 8,074,080 | 6,419,013 | 27,159,115 |
| Total | $91,899,671 | $18,915,376 | $16,752,798 | $46,469,994 |
| **1846.** | | | | |
| Baltimore | $10,143,299 | $1,861,500 | $2,159,149 | $3,113,750 |
| Boston | 29,814,647 | 2,437,072 | 6,373,686 | 6,806,373 |
| New Orleans | 8,943,799 | 6,577,998 | 3,167,171 | 7,561,590 |
| New York | 38,583,810 | 7,113,070 | 6,192,514 | 22,812,755 |
| Total, 1846 | $87,485,555 | $17,989,640 | $17,892,520 | $40,294,468 |
| " 1845 | 91,899,671 | 18,915,376 | 16,752,798 | 46,469,994 |
| Increase | ..... | ..... | $1,139,722 | ..... |
| Decrease | $4,464,116 | $925,736 | ..... | $6,175,526 |

The general business of the Union has been progressing, and large sales, at advancing prices, have continued to characterise domestic produce. The English demand for food, arising, as is now pretty evident, not so much from a supply less than ordinary, but a consumption greater than usual, continues steady and active. The export of quantities from the port of New York, for a series of years, has been as follows:—

EXPORTS FROM THE PORT OF NEW YORK.

| | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|
| Apples.....bbls. | 15,016 | 13,463 | 14,439 | 15,888 |
| Ashes, pots | 43,041 | 40,532 | 46,724 | 29,914 |
| Ashes, pearls | 2,584 | 9,706 | 9,567 | 4,909 |
| Beef | 36,048 | 61,648 | 55,552 | 66,539 |
| Beeswax.....cwt. | 7,154 | 6,387 | 4,595 | 4,575 |
| Brandy.....half pipes & casks | 294 | 6,485 | 4,803 | 4,743 |
| Butter.....firkins | 48,034 | 28,761 | 28,884 | 44,209 |
| Cassia.....mats | 28,947 | 14,380 | 17,414 | 8,468 |
| Candles, sperm..... ....boxes | 11,856 | 10,383 | 10,559 | 14,460 |
| Candles, tallow | 23,326 | 27,791 | 36,637 | 37,519 |
| Cheese.....casks | 8,964 | 11,241 | 5,935 | 13,182 |
| Cheese.....boxes | 62,112 | 77,173 | 113,698 | 162,712 |
| Clover seed.....tierces | 1,561 | 3,519 | 6,477 | 6,186 |
| Cocoa.....bags | 13,071 | 7,304 | 5,637 | 4,573 |
| Coffee ..... .... | 19,401 | 54,702 | 43,706 | 8,719 |
| Cordage.....coils | 2,559 | 3,805 | 3,993 | 2,557 |
| Corn .... .....bush. | 51,301 | 242,886 | 304,292 | 1,489,459 |
| Corn meal.....hhds. and bbls. | 28,715 | 36,650 | 28,650 | 113,659 |
| Cotton.....bales | 164,354 | 325,460 | 262,445 | 187,536 |
| Cotton goods | 30,435 | 21,980 | 22,323 | 33,905 |
| Logwood .....tons | 7,014 | 7,817 | 9,694 | 7,342 |
| Fustic ..... | 1,281 | 779 | 1,145 | 806 |
| Nicaragua | 196 | 121 | 179 | 47 |
| Cod, dry.....cwt. | 40,559 | 42,653 | 36,694 | 30,943 |
| Mackerel.....bbls. | 3,859 | 2,276 | 4,485 | 6,943 |
| Herring..... ..... | 5,898 | 6,467 | 4,602 | 4,624 |
| Flaxseed.....tierces | 4,131 | 3,924 | 14,586 | 5,616 |
| Flour.....bbls. | 274,881 | 347,249 | 469,520 | 1,193,428 |
| Flour, rye... ..... | 8,798 | 6,669 | 9,257 | 12,145 |

EXPORTS FROM THE PORT OF NEW YORK—CONTINUED.

| | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|
| Gunpowder.....kegs | 8,293 | 11,821 | 17,753 | 14,980 |
| Hams and bacon.....cwt. | 8,235 | 9,481 | 5,095 | 14,297 |
| Hides.....No. | 53,633 | 45,615 | 46,396 | 55,924 |
| Hops.....bales | 2,842 | 3,098 | 3,059 | 5,402 |
| Lard.....kegs | 188,687 | 198,094 | 84,819 | 209,024 |
| Lead.....pigs | ..... | ..... | 25,784 | 12,502 |
| Shooks.....No. | 23,769 | 29,322 | 35,844 | 44,870 |
| Boards.....M. | 4,748 | 5,688 | 9,188 | 4,254 |
| Staves..... | 3,239 | 4,619 | 7,365 | 5,670 |
| Hoops..... | 1,000 | 1,797 | 1,338 | 1,272 |
| Shingles..... | 1,761 | 2,423 | 2,200 | 1,936 |
| Nails.....casks | 9,248 | 7,857 | 8,797 | 8,655 |
| Rosin.....bbls. | 82,844 | 105,225 | 99,950 | 93,324 |
| Spirits turpentine..... | 1,702 | 2,127 | 4,112 | 12,539 |
| Tar..... | 35,374 | 26,049 | 31,983 | 27,032 |
| Turpentine..... | 202,049 | 207,908 | 237,252 | 147,930 |
| Oil, whale.....galls. | 2,567,916 | 2,368,966 | 3,117,984 | 1,001,266 |
| Oil, sperm..... | 471,563 | 380,332 | 900,244 | 601,274 |
| Pepper.....bags | 2,187 | 5,111 | 3,644 | 1,302 |
| Pimento..... | 5,247 | 3,305 | 9,993 | 3,672 |
| Pork.....bbls. | 48,962 | 90,772 | 76,481 | 82,363 |
| Rice.....tierces | 28,100 | 23,628 | 23,922 | 26,734 |
| Rum.....bbls. | 1,767 | 4,235 | 3,671 | 2,890 |
| Soap.....boxes | ..... | 44,114 | 41,720 | 31,367 |
| Gold.....$ | ..... | 1,375,526 | 1,047,670 | 821,898 |
| Silver.....$ | ..... | 5,313,357 | 2,009,718 | 667,451 |
| Sugar, refined.....cwt. | 9,066 | 19,121 | 46,310 | 7,495 |
| Tallow.....casks | ..... | 11,827 | 7,410 | 8,121 |
| Tobacco.....hhds. | 4,102 | 5,525 | 3,527 | 4,794 |
| Tobacco.....bales | 12,989 | 8,150 | 7,706 | 12,710 |
| Tobacco.....kegs | 11,799 | 15,487 | 20,954 | 8,348 |
| Whalebone.....cwt. | 14,521 | 13,668 | 24,431 | 15,858 |
| Wheat.....bush. | 44,885 | 58,282 | 304,654 | 1,477,356 |
| Whiskey.....bbls. | 70 | 736 | 1,088 | 2,202 |
| Wool.....bales | 64 | 106 | 3,120 | 1,690 |

The increase in many of these articles is very marked, and has given employment to a large amount of tonnage at very favorable rates and remunerative prices. The following is a table of the monthly exports and prices :—

EXPORTS FROM THE PORT OF NEW YORK MONTHLY, WITH THE PRICE OF FLOUR AT THE CLOSE OF EACH MONTH.

| | 1845. | | | | 1846. | | | |
|---|---|---|---|---|---|---|---|---|
| | Wheat. | Corn. | Flour. | Price. | Wheat. | Corn. | Flour. | Price. |
| January.. | .... | 13,370 | 13,316 | 4.87 | 46,591 | 112,607 | 69,613 | 5.62½ |
| February. | .... | 7,247 | 6,388 | 4.87½ | 9,276 | 201,220 | 41,153 | 5.50 |
| March.... | .... | 18,703 | 14,656 | 4.75 | 25,813 | 10,581 | 37,152 | 5.50 |
| April.... | 1,600 | 20,084 | 17,122 | 4.68 | 64,339 | 17,444 | 64,497 | 5.37 |
| May..... | .... | 6,672 | 24,881 | 4,62½ | 51,053 | 92,756 | 70,633 | 4.50 |
| June..... | .... | 7,190 | 27,351 | 4.68 | 125,816 | 95,089 | 131,027 | 4.06 |
| July..... | 3,902 | 4,702 | 21,495 | 4.31 | 100,780 | 26,259 | 102,550 | 4.18 |
| August... | 400 | 6,118 | 50,272 | 4.75½ | 99,664 | 7,231 | 77,586 | 4.00 |
| Septemb'r. | 13,302 | 6,647 | 60,616 | 4.62 | 151,765 | 117,949 | 86,895 | 5.00 |
| October.. | 84,444 | 4,293 | 59,473 | 6.25 | 222,380 | 195,182 | 163,967 | 6.00 |
| Novemb'r. | 142,115 | 75,837 | 71,773 | 7.00 | 303,121 | 367,350 | 115,161 | 5.37 |
| December. | 58,991 | 133,429 | 102,277 | 5.75 | 276,758 | 245,791 | 282,894 | 5.62 |
| | 304,654 | 304,292 | 469,520 | | 1,477,356 | 1,489,459 | 1,193,428 | |
| Increase. | ..... | ..... | ..... | | 1,172,702 | 1,185,167 | 723,908 | |

In order to show the exports to Great Britain from this port, for six months weekly, we append the following table :—

EXPORTS OF CERTAIN ARTICLES FROM NEW YORK TO GREAT BRITAIN, WEEKLY, WITH THE TOTAL EXPORTS FROM THE PORT, FOR THE SAME TIME.

| | Flour. | Wheat. | Corn. | Rye. | Barley. |
|---|---|---|---|---|---|
| July 9..... | 49,117 | 50,137 | 6,541 | 17,029 | .... |
| 16..... | 13,653 | .... | 4,886 | .... | .... |
| 23..... | 11,937 | 25,310 | .... | .... | .... |
| 29..... | 10,130 | 21,460 | .... | .... | .... |
| Aug't 6..... | 6,045 | 22,989 | .... | .... | .... |
| 14..... | 10,968 | 14,728 | .... | .... | .... |
| 20..... | 13,700 | 11,217 | .... | .... | .... |
| 27..... | 14,340 | 10,170 | .... | .... | .... |
| Sept'r 4..... | 17,880 | 10,250 | .... | .... | .... |
| 12..... | 2,480 | .... | 11,603 | .... | .... |
| 18..... | .... | 27,668 | 11,169 | .... | .... |
| 24..... | 14,800 | 38,460 | 18,264 | .... | .... |
| Oct'r 2..... | 12,560 | 47,295 | 31,801 | .... | .... |
| 9..... | 23,890 | 83,315 | 10,219 | .... | .... |
| 15..... | 30,724 | .... | 47,751 | .... | .... |
| 22..... | 12,555 | 23,554 | 57,929 | .... | .... |
| 30..... | 12,975 | 20,573 | 6,951 | .... | .... |
| Nov'r 6. ..... | 15,696 | 25,440 | 67,109 | .... | 2,515 |
| 13..... | 20,743 | 111,532 | 68,785 | .... | .... |
| 20..... | 8,807 | 56,078 | 81,666 | .... | .... |
| 27..... | 33,716 | 51,488 | 104,065 | .... | 251 |
| Dec'r 4..... | 30,850 | 44,876 | 44,746 | .... | .... |
| 11..... | 25,236 | 46,067 | 14,482 | .... | 7,061 |
| 18..... | 44,063 | 70,819 | 80,355 | .... | 9,365 |
| 25..... | 35,330 | 36,151 | 38,103 | .... | .... |
| 31..... | 29,338 | 57,947 | 26,982 | .... | 10,671 |
| | 500,733 | 902,524 | 733,257 | 17,029 | 29,863 |
| Total..... | 779,353 | 1,154,468 | 959,762 | 589,061 | 34,753 |
| Total, '45, 6 mos.. | 365,909 | 303,054 | 231,026 | 24,283 | 47,649 |

| | Oats. | Meal. | Whale oil. | Sperm. | Whalebone. |
|---|---|---|---|---|---|
| July 9..... | .... | .... | .... | 13,654 | .... |
| 16..... | .... | .... | .... | 3,602 | .... |
| 23..... | .... | .... | .... | 6,758 | .... |
| 29. . .... | .... | .... | .... | .... | .... |
| Aug't 6..... | .... | .... | .... | .... | .... |
| 14..... | .... | .... | .... | 6,546 | .... |
| 20..... | .... | .... | .... | .... | .... |
| 27..... | .... | .... | .... | .... | .... |
| Sept'r 4..... | .... | 1,000 | 31,466 | 35,105 | .... |
| 12..... | .... | 250 | .... | 12,712 | .... |
| 18..... | .... | 1,900 | .... | 21,913 | .... |
| 24..... | .... | .... | .... | 11,947 | .... |
| Oct'r 2..... | .... | 685 | .... | 7,905 | .... |
| 9..... | .... | 106 | .... | 18,542 | .... |
| 15. ..... | .... | 597 | .... | 3,613 | .... |
| 22..... | .... | .... | .... | ... | 19,533 |
| 30..... | .... | .... | ... | 9,337 | 18,760 |
| Nov'r 6..... | .... | 1,459 | 2,922 | 32,850 | 28,986 |
| 13..... | .... | 3,499 | .... | 13,686 | 25,901 |
| 20..... | 17,000 | .... | .... | 42,018 | 16,462 |
| 27..... | .... | 4,432 | .... | .... | 6,582 |
| Dec'r 4..... | .... | 1,196 | 8,083 | .... | .... |
| 11..... | .... | .... | 24,296 | .... | 9,648 |
| 18..... | 3,398 | 2,741 | 6,671 | .... | .... |
| 25..... ... | 3,630 | 6,936 | 31,222 | 40,297 | 61,905 |
| 31..... | .... | 5 835 | .... | 12,332 | .... |
| | 24,028 | 30,640 | 104,660 | 382,821 | 187,775 |
| Total..... | 89,096 | 54,658 | 589,257 | 330,590 | 1,024,900 |
| Total, '45, 6 mos.. | .... | 12,845 | 1,432,138 | 451,109 | 1,214,225 |

The English demand absorbed nearly all these quantities. The following is a comparative table of the quantities shipped to Great Britain, for the year ending June 30 :—

EXPORTS OF CERTAIN ARTICLES TO GREAT BRITAIN, FOR THE YEAR ENDING JUNE 30.

| | Flour. | Wheat. | Corn. | Meal. | Wool. | Lead. |
|---|---|---|---|---|---|---|
| England..... | 969,306 | 848,607 | 688,719 | 15,772 | 610,625 | 3,368,085 |
| Scotland..... | 37,078 | 57,349 | 78,026 | 642 | .... | .... |
| Ireland..... | 8,860 | 68,442 | 425,960 | 33,750 | .... | .... |
| Total..... | 1,015,244 | 974,398 | 1,192,702 | 50,164 | 610,625 | 3,368,085 |
| 1845. | | | | | | |
| England..... | 35,335 | 2,010 | 134,898 | 1 | .... | 811,445 |
| Scotland..... | 20 | .... | .... | .... | .... | .... |
| Ireland..... | .... | .... | 790 | .... | .... | .... |
| Total..... | 35,355 | 2,010 | 135,688 | 1 | .... | 811,445 |

The quantities of corn and meal sent to Ireland direct, have become important, and that, doubtless, will be an increasing trade. The following is a table of the receipts and exports of flour, at four leading ports, for the year ending Dec. 31 :—

| FLOUR—BBLS. | RECEIPTS. | | FOREIGN EXPORTS. | |
|---|---|---|---|---|
| | 1845. | 1846. | 1845. | 1846. |
| New Orleans..... | 599,836 | 1,020,816 | 79,266 | 372,112 |
| Baltimore..... | 563,632 | 794,105 | 238,900 | 516,504 |
| Philadelphia..... | 475,449 | 753,252 | 201,956 | 364,812 |
| New York..... | 1,963,150 | 1,548,394 | 469,520 | 1,193,428 |
| Total..... | 3,602,076 | 5,116,167 | 989,642 | 2,446,856 |

The exports from New Orleans are to foreign ports other than Cuba. The large increase in exports has not sufficed, however, to sustain prices under the enhanced receipts, the free outlet having been restrained by lack of freights.

The inmost avenues of communication have felt the influence of the external demand. The following is a table of the receipts of produce at Cleveland, on the Ohio Canal, for a series of years :—

RECEIPTS OF PRODUCE AT CLEVELAND, VIA OHIO CANAL.

| | 1841. | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|---|
| Wheat..bush. | 1,304,421 | 1,311,665 | 813,356 | 1,000,079 | 205,581 | 1,672,340 |
| Flour...bbls. | 441,425 | 492,711 | 577,369 | 511,710 | 352,732 | 368,355 |
| Pork..... | 29,794 | 52,272 | 13,177 | 36,653 | 19,948 | 42,996 |
| Coal....bush. | 478,870 | 466,844 | 387,834 | 560,842 | 886,880 | 893,806 |
| Ashes....lbs. | 100,111 | 584,851 | 1,082,733 | 1,399,694 | 1,060,973 | 660,983 |
| Butter..... | 1,403,280 | 1,115,056 | 1,008,387 | 1,206,935 | 1,087,184 | 1,341,333 |
| Cheese..... | 58,168 | 260,201 | 215,819 | 90,010 | .... ... | .... ... |
| Bacon..... | 1,881,271 | 1,267,245 | 1,926,666 | 1,722,628 | 863,911 | 1,494,821 |
| Lard..... | 961,161 | 1,311,185 | 1,649,835 | 1,546,365 | 722,734 | 1,078,444 |
| Wool..... | 107,805 | 199,803 | 391,138 | 848,916 | 961,982 | 970,709 |
| Iron & nails.. | 3,905,417 | 3,172,872 | 7,008,140 | 6,945,746 | 9,122,822 | 11,527,908 |
| Pig iron..... | 968,160 | 1,924,386 | 2,891,551 | 2,103,740 | | |
| Corn....bush. | ..... | ..... | ..... | ... ..... | 164,967 | 527,270 |

MERCHANDISE CLEARED AT CLEVELAND.

| | | | | | | |
|---|---|---|---|---|---|---|
| Salt.....bbls. | 59,773 | 49,456 | 44,310 | 79,579 | 52,501 | 58,952 |
| Merc'dise.lbs. | 15,164,747 | 10,091,803 | 12,822,725 | 11,843,265 | 10,886,708 | 10,796,129 |
| Gypsum..... | 1,532,129 | 1,789,422 | 2,964,955 | 2,429,720 | 1,711,753 | 1,116,578 |
| Cheese..... | ..... | ..... | ..... | ..... | 30,854 | 77,551 |

A curious item here, is the fact, that the receipts of cheese at Cleveland have ceased, and it is now shipped inland. It is observable, that the export of mer-

chandise, by canal, has declined annually since 1843! The revenue on the Ohio canals is as follows:—

OHIO CANAL TOLLS.

| | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|
| Ohio Canal.... | $387,442 22 | $324,259 81 | $343,710 99 | $252,199 01 | $328,018 |
| Miami..... | 58,460 34 | 68,640 09 | 77,844 25 | 74,319 78 | 116,665 |
| " Extens'n | 4,085 13 | 8,291 42 | 12,723 22 | 32,007 47 | ..... |
| Wabash & Erie | 5,866 13 | 35,922 36 | 48,589 20 | 73,907 44 | 110,521 |
| Muskingum... | 15,355 27 | 22,349 98 | 29,384 64 | 38,461 26 | 34,037 |
| Hocking..... | 3,712 27 | 4,349 33 | 5,286 44 | 4,519 73 | 5,145 |
| Walhonding... | 610 17 | 640 32 | 1,976 78 | 1,183 82 | 1,090 |
| Reserves..... | ..... | ..... | 8,746 55 | 6,612 66 | ..... |
| Total..... | $475,531 53 | $464,423 81 | $528,262 07 | $473,211 47 | $595,474 |

The expenses, &c., are about $250,000.

The increase on the Wabash is mostly from Indiana business. The shipments from Michigan, for several years, have been as follows:—

SHIPMENTS FROM MICHIGAN.

| | TOLEDO. | | MONROE. | | DETROIT. | |
|---|---|---|---|---|---|---|
| | Flour. | Wheat. | Flour. | Wheat. | Flour. | Wheat. |
| 1842 ..... | 37,280 | 110,780 | 9,310 | 79,455 | 180,210 | 98,923 |
| 1843 ..... | 59,368 | 187,800 | 41,699 | 121,107 | 263,083 | 106,181 |
| 1844 ..... | 38,070 | 88,548 | .... | .... | 296,170 | 112,352 |
| 1845 ..... | 86,382 | 565,711 | 67,369 | 218,906 | 225,431 | 230,608 |
| 1846 ..... | 68,600 | 753,211 | 155,108 | 372,847 | 464,092 | 114,397 |

The crop of Michigan is estimated this year at 9,000,000 bushels, of which near 2,500,000 are accumulating in store for spring navigation. Of these large lake productions, considerable quantities seek the New York canals by way of Oswego, whence the clearance by canal is as follows:—

| | Flour, bbls. | Wheat, bush. | Corn, bush. | Butter, lbs. | Cheese, lbs. | Lard, lbs. | Bacon, lbs. |
|---|---|---|---|---|---|---|---|
| 1845..... | 379,383 | 119,572 | 9,268 | 2,884,671 | 3,678,038 | 169,186 | ..... |
| 1846..... | 471,318 | 433,446 | 347,747 | 2,664,553 | 4,868,026 | 553,063 | 548,356 |

All these streamlets uniting upon the New York canals, have produced a great volume of trade, as expressed in the following table:—

CANALS.—RECEIPTS AT TIDE WATER.

| | 1844. | 1845. | | 1846. | |
|---|---|---|---|---|---|
| *Forest.* | Quantity. | Quantity. | Value. | Quantity. | Value. |
| Boards & Scantling..ft. | 832,200 | 705,749 | $873,436 | 817,150 | $1,021,385 |
| Furs and Peltry....lbs. | 232,434,700 | 237,924,666 | 4,044,720 | 260,335,271 | 4,422,936 |
| Shingles.....M. | 78,125 | 72,120 | 234,390 | 69,822 | 244,378 |
| Timber.....ft. | 921,982 | 2,492,668 | 498,534 | 1,798,168 | 251,096 |
| Staves .....lbs. | 97,533,000 | 139,754,800 | 628,898 | 106,152,500 | 1,513,432 |
| Wood .....cords | 16,550 | 17,695 | 86,258 | 11,832 | 59,160 |
| Ashes.....bbls. | 80,646 | 69,668 | 1,393,360 | 46,812 | 1,076,904 |
| *Agriculture.* | | | | | |
| Pork.....bbls. | 63,646 | 45,153 | 571,637 | 80,093 | 800,925 |
| Beef..... | 50,000 | 67,699 | 507,733 | 45,600 | 364,800 |
| Bacon.....lbs. | ..... | 1,631,700 | 118,299 | 4,000,500 | 290,037 |
| Cheese..... | 26,674,500 | 27,543,861 | 1,921,000 | 35,560,118 | 2,844,537 |
| Butter..... | 22,596,300 | 21,825,455 | 3,055,564 | 21,477,657 | 3,220,633 |
| Lard..... | | 3,064,800 | 245,184 | 6,721,000 | 498,810 |
| Wool..... | 7,762,300 | 9,504,039 | 2,946,252 | 8,866,376 | 2,571,415 |
| Hides..... | ..... | 293,009 | 36,277 | 340,900 | 42,613 |
| Flour.....bbls. | 2,222,204 | 2,517,250 | 14,021,081 | 3,063,441 | 15,470,271 |
| Wheat.....bush. | 1,262,249 | 1,620,033 | 1,941,869 | 2,950,636 | 3,366,141 |

CANALS.—RECEIPTS AT TIDE WATER—CONTINUED.

| | 1844. | 1845. | | 1846. | |
|---|---|---|---|---|---|
| | Quantity. | Quantity. | Value. | Quantity. | Value. |
| Rye.....bush. | 62,239 | 157,488 | $111,002 | 321,799 | $232,304 |
| Corn ..... | 17,861 | 35,803 | 21,479 | 1,610,149 | 1,126,854 |
| Barley..... | 818,472 | 1,137,917 | 671,371 | 1,427,953 | 813,933 |
| Other grain.... ..... | 1,166,524 | 1,294,609 | 491,951 | 1,920,800 | 710,474 |
| Bran and ship-stuff.... | 1,177,189 | 1,067,665 | 160,150 | 1,468,232 | 220,181 |
| Peas and beans..... | 21,176 | 66,175 | 70,145 | 96,800 | 96,800 |
| Potatoes..... | 18,263 | 145,569 | 58,076 | 230,939 | 114,686 |
| Dried fruit.....lbs. | 1,299,400 | 360,966 | 32,477 | 1,502,900 | 135,261 |
| Cotton..... | 79,600 | 66,800 | 5,177 | 445,100 | 34,495 |
| Tobacco..... | 318,900 | 670,900 | 80,508 | 2,609,100 | 313,092 |
| Clover and grass-seed.. | 4,594,800 | 3,161,200 | 221,284 | 1,094,400 | 76,608 |
| Flax-seed..... | 3,114,000 | 8,303,960 | 166,076 | 5,283,700 | 131,943 |
| Hops ..... | 1,319,700 | 874,200 | 157,356 | 1,690,500 | 185,955 |
| *Manufactures.* | | | | | |
| Domestic spirits..galls. | 1,191,317 | 1,558,601 | 444,809 | 1,426,549 | 313,800 |
| Leather.....lbs. | 3,909,000 | 15,363,925 | 2,765,507 | 5,160,654 | 238,918 |
| Furniture..... | 2,177,400 | 2,561,624 | 256,162 | 2,226,114 | 223,611 |
| Bar and pig lead..... | 41,800 | 223,500 | 8,940 | 489,800 | 19,592 |
| Pig iron..... | 6,422,600 | 8,031,218 | 140,546 | 10,574,740 | 182,574 |
| Bloom and bar iron.... | ..... | ..... | ..... | 10,892,243 | 265,222 |
| Iron ware..... | 944,900 | 4,665,398 | 186,615 | 1,219,091 | 48,830 |
| Domestic woollens.... | 867,200 | 1,407,529 | 1,900,029 | 1,425,340 | 1,923,390 |
| Domestic cottons..... | 1,584,600 | 1,879,446 | 582,628 | 2,324,774 | 719,787 |
| Salt ..... lbs. | 175,013 | 173,968 | 147,023 | 692,442 | 180,035 |
| Merchandise..... | 492,800 | 505,708 | 88,497 | 3,594,322 | 276,872 |
| *Other Articles.* | | | | | |
| Stone, lime & clay..lbs. | 50,159,800 | 55,344,598 | 83,016 | 44,200,083 | 63,170 |
| Gypsum..... | 1,801,800 | 12,263,800 | 27,666 | 10,084,100 | 26,933 |
| Mineral coal..... | 18,480,700 | 47,798,300 | 119,406 | 10,846,600 | 47,116 |
| Sundries ..... | 54,722,400 | 88,237,259 | 3,329,490 | 90,841,614 | 2,633,256 |
| *Aggregates.* | | | | | |
| Forest... .....tons | 545,202 | 607,930 | 7,759,596 | 603,010 | 8,589,291 |
| Agriculture..... | 383,363 | 447,627 | 27,612,291 | 628,454 | 33,662,818 |
| Manufactures..... | 39,957 | 49,812 | 6,432,259 | 46,076 | 4,805,799 |
| Merchandise..... | 246 | 253 | 88,497 | 1,795 | 276,872 |
| Other articles..... | 62,625 | 99,321 | 3,559,658 | 82,982 | 3,770,476 |
| Total..... | 1,031,395 | 1,204,943 | 45,452,321 | 1,362,319 | 51,105,256 |

This volume of produce has kept the business of the canals in great activity. The total business of the canals has been, for several years, as follows :—

| | Tons. | Value. | Tolls. |
|---|---|---|---|
| 1839..... | 1,435,713 | $73,399,764 | $1,616,382 |
| 1840..... | 1,416,046 | 63,303,892 | 1,775,747 |
| 1841..... | 1,521,661 | 92,202,929 | 2,084,882 |
| 1842... ..... | 1,236,931 | 60,016,608 | 1,749,196 |
| 1843..... | 1,513,439 | 76,276,909 | 2,081,590 |
| 1844..... | 1,816,586 | 90,921,152 | 2,446,374 |
| 1845... ..... | 1,977,565 | 100,624,859 | 2,646,181 |
| 1846..... | 2,150,144 | 115,732,780 | 2,758,249 |

A large portion of this increase of tonnage, it will be seen, is in vegetable food, of that description which has formed so large a proportion of the increased shipments to England. The following is a table of the value of certain articles of produce, delivered on the New York canals, and of the same articles shipped to Great Britain, and the total shipments from the United States :—

| | 1845. | | | 1846. | | |
|---|---|---|---|---|---|---|
| | Received on canals. | Export'd to G. Britain. | Total from U. States. | Received on canals. | Export'd to G. Britain. | Total from U. States. |
| Beef tallow..... | 250,000 | 777,906 | 1,810,551 | 864,800 | 1,354,341 | 2,474,208 |
| Pork, bacon, &c. | 572,814 | 648,705 | 3,236,479 | 1,589,772 | 768,266 | 3,883,884 |
| Butter & cheese. | 4,050,634 | 338,647 | 758,829 | 6,065,170 | 531,085 | 1,063,087 |
| Wheat..... | 1,211,759 | 20,160 | 500,400 | 3,366,141 | 1,056,325 | 1,681,975 |
| Flour..... | 9,999,918 | 745,436 | 6,759,488 | 15,470,271 | 5,186,677 | 11,668,669 |
| Corn..... | 8,981 | 48,893 | 404,008 | 1,126,854 | 797,176 | 1,186,663 |
| Meal..... | ..... | 102 | 641,029 | ..... | 190,073 | 945,081 |
| Rye and oats... | 43,506 | 8,996 | 133,477 | 232,304 | 142,694 | 638,222 |
| Hops ..... | 171,561 | ..... | ..... | 185,955 | 10,917 | 41,693 |
| | 16,309,123 | 2,568,845 | 14,244,261 | 28,421,267 | 10,037,554 | 23,583,482 |
| Increase... | ..... | ..... | ..... | 12,112,144 | 7,468,709 | 9,339,221 |

Seventy-five per cent of the amount of the increased receipts of the canals was exported from the Union; and that the remainder was in excess of the home wants, is evident, from the fact that prices are less than at the same period of last year.

The nature of the trade is such now as to warrant anticipations of a rapid increase; and, from the fact of the high freights and possibly diminishing quantity of cotton to be exported, greater facilities for transportation may be looked for. Such a result will allow of greater remuneration to growers. The prices of cotton continue to advance; and while those planters who have entirely lost their crops will suffer, by those who have a fair supply, as is the case in the Atlantic States, a most profitable year will doubtless be experienced. The general movement is such as to lay the foundation of a large future trade. Thus far the spring trade has opened fairly.

To ship-building, particularly, a great impulse has been imparted by the growth of the export trade, and the consequent high freights which have been obtained during the past year for transportation of produce, while the low tariff holds out greater prospects of return freights. Up to the 22d January, the arrival of dutiable goods at the port of New York was $4,610,997, against $2,428,691 in the same period last year, being nearly 100 per cent. As a consequence, the duties have been $1,201,830, against $745,100; presenting the fact, that the duties under the new tariff average 4 per cent only less than under the old—that is to say, the duties this year are 26 per cent against 30½ last year. The prospect of an improved business in the spring and fall, has induced great confidence among importers. The Secretary of the Treasury has, with the view to facilitate business in the warehouse, appointed Mr. D. H. Barhydt as a register of goods warehoused, with the view to issue certificates of deposit on goods placed in bond, specifying the quantity, packages, and value. These certificates may be available in the market to small capitalists, as security in procuring discounts, inasmuch as that their return is necessary to the release of the goods they represent. By these means, the importer of small capital can command on these warrants discounts, and they will become the best possible description of security for loans; or the goods may be sold outright, as securely and satisfactorily by means of these warrants, as if the articles themselves were taken out of warehouse and exposed for sale. In fact, by such a warrant, the importer holds in his hand his goods, either for sale or discount, as securely, and as easily transferable as his dollars in bank are disposed of by check.

# COMMERCIAL STATISTICS.

## COMMERCE AND NAVIGATION OF NEW YORK,

FOR THE YEAR ENDING ON THE 30TH DECEMBER, 1846.

We commence this statement with an account of the value of the exports and imports of merchandise in each month of the year, as taken from the custom-house books. It will be seen that the total exports in 1846 were $86,423,762, exceeding those of 1845 by $3,532,100, and those of 1844 by $1,795,322; which were larger than any former year:—

| Months. | VALUE OF IMPORTS IN 1846. For. goods dutiable. $ | Do. free. $ | Specie. $ | VALUE OF EXPORTS IN 1846. For. goods dutiable. $ | Do. not dutiable. $ | Domestic goods. $ | Specie. $ |
|---|---|---|---|---|---|---|---|
| January .... | 4,842,884 | 376,905 | 43,221 | 124,575 | 86,857 | 1,939,412 | 21,762 |
| February ... | 4,177,952 | 474,360 | 96,779 | 120,855 | 52,248 | 1,673,242 | 126,700 |
| March..... | 8,657,798 | 1,092,476 | 62,225 | 122,072 | 66,216 | 1,463,529 | 257,781 |
| April ..... | 4,105,393 | 2,228,878 | 106,544 | 195,518 | 114,927 | 1,998,736 | 519,599 |
| May..... | 4,160,360 | 1,300,751 | 27,286 | 208,562 | 85,850 | 2,529,096 | 291,041 |
| June..... | 4,605,527 | 1,239,006 | 29,122 | 223,504 | 93,058 | 3,745,687 | None. |
| July..... | 5,411,595 | 729,235 | 54,879 | 122,403 | 40,414 | 2,876,015 | 80,463 |
| August..... | 7,585,427 | 826,815 | 44,882 | 167,772 | 39,484 | 2,413,782 | 57,589 |
| September.. | 5,272,923 | 600,849 | 10,044 | 305,860 | 82,309 | 2,238,101 | 2,255 |
| October .... | 2,738,997 | 991,449 | 69,809 | 296,240 | 74,199 | 3,354,142 | 70,350 |
| November... | 2,568,483 | 719,215 | 139,392 | 247,930 | 60,357 | 3,510,269 | 7,680 |
| December... | 4,279,813 | 537,496 | 61,346 | 118,345 | 65,876 | 4,211,300 | None. |
| | 58,406,847 | 11,117,435 | 745,529 | 2,223,186 | 811,795 | 31,953,611 | 1,435,220 |
| | 11,117,435 | | | | | 2,223,186 | |
| | 745,529 | | | | | 811,795 | |
| | | | | | | 1,435,220 | |
| Tot. imports, | 70,269,811 | | | Total exports, | | 86,423,762 | |

STATEMENT OF IMPORTS INTO THE PORT OF NEW YORK FOR 1845–46.

| | 1846. | 1845. | | 1846. | 1845. |
|---|---|---|---|---|---|
| Brandy....half pipes | 4,824 | 8,622 | Molasses.....bbls. | 23,557 | 33,127 |
| q. c'sks & bbls. | 4,047 | 7,286 | Ol. oil.....casks | 231 | 1,102 |
| Coal.....tons | 35,116 | 53,236 | ...bxs. & bask. | 11,807 | 32,915 |
| Cocoa.....bags | 5,969 | 7,269 | Pepper .....bags | 21,245 | 16,579 |
| Cochineal....ceroons | 480 | 741 | Pimento ..... | 7,066 | 20,782 |
| Coffee .....bags | 382,268 | 312,362 | Rags.....bales | 11,730 | 14,331 |
| .....casks | 289 | 62 | Raisins.....casks | 7,962 | 11,729 |
| Cotton .....bales | 322,456 | 356,749 | .....boxes | 354,732 | 304,642 |
| Duck..... | 1,659 | 1,193 | .....drums | 3,305 | 2,122 |
| .....pieces | 3,474 | 7,976 | Rice.....tcs. | 36,443 | 34,631 |
| Earthen-ware..crates and casks..... | 29,417 | 32,537 | Rum.....puncheons | 1,300 | 1,972 |
| Figs .....drums | 35,893 | 140,747 | Salt.....bush. | 1,303,668 | 1,055,509 |
| Glass.....boxes | 1,574 | 2,150 | Saltpetre.....bags | 9,295 | 18,599 |
| Gin.....pipes | 2,356 | 2,501 | Sugar.....hhds. | 67,238 | 88,268 |
| Hemp.....bales | 43,623 | 51,009 | .....tcs. | 577 | 1,626 |
| .....tons | 145 | 730 | ..... bbls. | 7,242 | 17,039 |
| Hides.....bales | 694 | 768 | ..... bxs. | 85,744 | 22,958 |
| .....No. | 566,446 | 703,282 | ..... bags | 37,652 | 38,771 |
| Iron, bar .....tons | 15,390 | 19,597 | Tobacco.....hhds. | 17,674 | 8,998 |
| pig..... | 17,371 | 28,937 | ..bales & cer. | 14,916 | 17,191 |
| sheet, hoop, &c.. | 49,864 | 55,484 | Wine..butts and pipes | 1,289 | 883 |
| Indigo.....cases | 997 | 2,069 | hhds. & half do. | 12,415 | 8,155 |
| .....ceroons | 1,164 | 1,667 | qr. casks..... | 41,691 | 27,361 |
| Lead.....pigs | 293,796 | 385,214 | Ind. bbls..... | 11,293 | 8,811 |
| Molasses.....hhds. | 73,822 | 62,506 | boxes..... | 19,911 | 10,692 |
| .....tierces | 5,168 | 5,780 | Wool.....bales | 19,514 | 22,272 |

FOREIGN ARRIVALS AT THE PORT OF NEW YORK.

Colonel THORNE, of the United States revenue service, furnishes the following list of arrivals at the port of New York, from all foreign countries, for the year ending December 31st, 1846:—

| Nation. | Ships. | Barks. | Brigs. | Schrs. | Galliots. | St'mers. | Arm. vess. | Total. |
|---|---|---|---|---|---|---|---|---|
| American | 475 | 277 | 584 | 284 | .... | .... | .... | 1,620 |
| British | 48 | 50 | 198 | 78 | .... | 6 | .... | 380 |
| Bremen | 20 | 28 | 16 | 3 | .... | .... | .... | 67 |
| Swedish | 2 | 9 | 29 | 1 | .... | .... | .... | 41 |
| Hamburgh | 8 | 13 | 5 | .... | .... | .... | .... | 26 |
| French | 5 | 7 | 3 | .... | .... | .... | .... | 15 |
| Norwegian | 1 | 7 | 12 | .... | .... | .... | 1 | 21 |
| Dutch | 3 | 8 | 4 | .... | 3 | .... | 2 | 20 |
| Danish | 4 | 2 | 9 | 1 | .... | .... | .... | 16 |
| Portuguese | .... | 1 | 7 | 8 | .... | .... | .... | 16 |
| Prussian | .... | 4 | 8 | .... | .... | .... | .... | 12 |
| Austrian | 2 | .... | 6 | 1 | .... | .... | .... | 9 |
| Sardinian | 1 | 2 | 6 | 1 | .... | .... | .... | 10 |
| Belgian | .... | 3 | .... | .... | .... | .... | 1 | 4 |
| Russian | .... | 1 | 2 | .... | .... | .... | .... | 3 |
| Brazilian | .... | 1 | 4 | .... | .... | .... | .... | 5 |
| Genoese | .... | .... | 1 | .... | .... | .... | .... | 1 |
| Mexican | .... | 1 | 1 | .... | .... | .... | .... | 2 |
| New Granada | .... | 2 | 1 | 2 | .... | .... | .... | 5 |
| Central America | .... | .... | .... | 1 | .... | .... | .... | 1 |
| Oldenburgh | .... | .... | 2 | .... | .... | .... | .... | 2 |
| Tuscany | 1 | .... | .... | .... | .... | .... | .... | 1 |
| Mecklenburgh | .... | 1 | .... | .... | .... | .... | .... | 1 |
| Spanish | .... | 1 | .... | 2 | .... | 1 | .... | 4 |
| Chilian | 1 | 1 | .... | .... | .... | .... | .... | 2 |
| Peruvian | .... | 1 | .... | .... | .... | .... | .... | 1 |
| Venezuelian | .... | .... | 1 | .... | .... | .... | .... | 1 |
| Lubeck | .... | .... | 1 | .... | .... | .... | .... | 1 |
| Colombian | .... | 1 | .... | .... | .... | .... | .... | 1 |
| Haytien | .... | 1 | .... | .... | .... | .... | .... | 1 |
| Sicilian | .... | 3 | 1 | .... | .... | .... | .... | 4 |
| Total | 571 | 425 | 901 | 382 | 3 | 7 | 4 | 2,293 |

COASTWISE ARRIVALS AT NEW YORK, 1846.

| Months. | Ships. | Barks. | Brigs. | Schrs. | Total. |
|---|---|---|---|---|---|
| January | 11 | 9 | 43 | 317 | 375 |
| February | 17 | 11 | 44 | 284 | 356 |
| March | 26 | 25 | 45 | 379 | 475 |
| April | 35 | 11 | 39 | 515 | 600 |
| May | 28 | 14 | 42 | 339 | 423 |
| June | 13 | 14 | 51 | 355 | 433 |
| July | 18 | 19 | 39 | 349 | 425 |
| August | 14 | 6 | 44 | 189 | 253 |
| September | 13 | 10 | 40 | 255 | 318 |
| October | 25 | 11 | 45 | 335 | 416 |
| November | 22 | 12 | 38 | 225 | 297 |
| December | 38 | 27 | 50 | 177 | 292 |

| | |
|---|---|
| Whole number as above | 4,663 |
| Which, added to the arrivals from foreign ports | 2,289 |
| Makes a total for the year of | 6,952 |
| Whole number last year | 7,843 |
| Decrease | 891 |

NOTE.—In the above no sloops are included, which, if added to the many schooners from Virginia and Philadelphia with wood and coal, which are never boarded, owing to the remoteness of the points at which they come in, would make the number much greater.

COMPARATIVE VIEW OF ARRIVALS AND PASSENGERS IN DIFFERENT YEARS.

| Years. | No. arrivals. | Pass'gers. | Years. | No. arrivals. | Pass'gers. |
|---|---|---|---|---|---|
| 1840..... | 1,953 | 62,797 | 1844..... | 2,208 | 61,002 |
| 1841..... | 2,118 | 57,337 | 1845..... | 2,044 | 82,960 |
| 1842..... | 1,960 | 74,949 | 1846..... | 2,293 | 115,230 |
| 1843..... | 1,882 | 46,302 | | | |

## TOBACCO TRADE OF NEW YORK IN 1846.

A correspondent of the "Journal of Commerce" furnishes the following statement of the tobacco trade of New York for the year ending December 31st, 1846. It will, we doubt not, prove interesting to many of our readers:—

STATEMENT OF THE TOBACCO TRADE OF NEW YORK FOR THE YEAR 1846.

| 1846. | Kentucky. | Va. and N. C. | Ohio. | Md. |
|---|---|---|---|---|
| Delivered in January ..... | 326 | 0 | 0 | 0 |
| " February ..... | 253 | 17 | 0 | 0 |
| " March..... | 451 | 16 | 0 | 1 |
| " April..... | 627 | 4 | 0 | 11 |
| " May..... | 640 | 25 | 0 | 0 |
| " June ..... | 552 | 75 | 0 | 0 |
| " July..... | 344 | 121 | 9 | 4 |
| " August..... | 453 | 96 | 20 | 0 |
| " September..... | 602 | 196 | 3 | 3 |
| " October..... | 1,180 | 161 | 27 | 3 |
| " November..... | 1,270 | 170 | 12 | 0 |
| " December..... | 541 | 74 | 0 | 24 |
| Total..... | 7,238 | 955 | 71 | 60 |

STATEMENT—CONTINUED.

| | | | | |
|---|---|---|---|---|
| January 1, stock on hand..... | 3,357 | 190 | 6 | 1 |
| Received in January ..... | 250 | 40 | 0 | 6 |
| " February ..... | 53 | 1 | 0 | 0 |
| " March..... | 202 | 0 | 0 | 7 |
| " April..... | 310 | 18 | 0 | 0 |
| " May ..... | 409 | 56 | 9 | 0 |
| " June..... | 312 | 206 | 11 | 0 |
| " July ..... | 664 | 227 | 16 | 13 |
| " August..... | 770 | 228 | 4 | 6 |
| " September..... | 1,184 | 267 | 17 | 6 |
| " October..... | 935 | 400 | 20 | 0 |
| " November..... | 287 | 71 | 1 | 33 |
| " December..... | 305 | 276 | 33 | 12 |
| | 9,058 | 1,975 | 108 | 84 |
| | 7,238 | 955 | 71 | 60 |
| | 1,820 | 1,020 | 37 | 24 |
| Stock on hand 1st January, 1847 .....hhds. | | | | 2,901 |

STATEMENT—CONTINUED.

| | Ky. | Va. & N. C. | Ohio. | Md. | Total. |
|---|---|---|---|---|---|
| Stock on hand, January 1, 1844..... | 6,128 | 195 | 3 | 0 | 6,326 |
| " " 1845..... | 3,985 | 326 | 0 | 10 | 4,321 |
| " " 1846..... | 3,357 | 171 | 18 | 9 | 3,555 |
| " " 1847..... | 1,820 | 1,020 | 37 | 24 | 2,901 |

It would seem, from the foregoing statement, that the tobacco trade of New York is in a rapid state of decline.

## COMMERCIAL NAVIGATION OF GREAT BRITAIN.

### ENTRIES AND CLEARANCES OF COLONIAL AND FOREIGN SHIPPING.

The following is a return of the number and tonnage of British shipping entered inwards at ports of the United Kingdom from British colonial ports, and cleared outward therefrom to such ports, in each year, since 1820:—

| | ENTERED INWARDS. | | CLEARED OUTWARDS. | |
|---|---|---|---|---|
| | Ships. | Tonnage. | Ships. | Tonnage. |
| 1821 | 2,582 | 656,213 | 2,698 | 668,145 |
| 1822 | 2 473 | 649,041 | 2,709 | 670,140 |
| 1823 | 2,772 | 723,113 | 2,751 | 702,628 |
| 1824 | 2,856 | 757,659 | 2,983 | 764,761 |
| 1825 | 3,014 | 810,478 | 3,086 | 808,711 |
| 1826 | 2,991 | 926,308 | 2,903 | 771,152 |
| 1827 | 2,564 | 711,313 | 2,779 | 735,180 |
| 1828 | 2,880 | 784,693 | 3,113 | 823,891 |
| 1829 | 2,974 | 829,727 | 3,092 | 819,148 |
| 1830 | 3,043 | 842,795 | 3.143 | 850,132 |
| 1831 | 3,104 | 870,869 | 3,284 | 884.295 |
| 1832 | 3,148 | 875,419 | 3,402 | 920,081 |
| 1833 | 3,286 | 912,441 | 3,433 | 906,501 |
| 1834 | 3,326 | 922,856 | 3,488 | 950,011 |
| 1835 | 3,633 | 1,040,091 | 3,573 | 1,012,076 |
| 1836 | 3,512 | 1,040,244 | 3,685 | 1,047,727 |
| 1837 | 3,534 | 1,078,681 | 3,446 | 1,013,967 |
| 1838 | 3,584 | 1,111,260 | 3,781 | 1,168,011 |
| 1839 | 3,698 | 1,162,684 | 3,865 | 1,187,147 |
| 1840 | 3,887 | 1,251,826 | 4,376 | 1,365,228 |
| 1841 | 4,160 | 1,364,517 | 4,352 | 1,383,760 |
| 1842 | 3,283 | 1,067,485 | 3,538 | 1,127,520 |
| 1843 | 3,909 | 1,304,236 | 4,161 | 1,357,129 |
| 1844 | 4,151 | 1,375,705 | 4,979 | 1,604,029 |
| 1845 | 5,685 | 1,895,529 | 5,046 | 1,706,835 |

The following is a return of the number and tonnage of British vessels entered inwards from ports of foreign powers in Europe, Asia, Africa, and America, respectively, and cleared outwards to such ports, in each year, since 1820:—

| | ENTERED INWARDS. | | CLEARED OUTWARDS. | |
|---|---|---|---|---|
| | Ships. | Tonnage. | Ships. | Tonnage. |
| 1821 | 6,669 | 863,891 | 5,766 | 757,295 |
| 1822 | 6,857 | 930,282 | 5,768 | 800.091 |
| 1823 | 6,647 | 931,790 | 5,393 | 771,058 |
| 1824 | 6,844 | 941,447 | 5,553 | 811,595 |
| 1825 | 8,657 | 1,248,475 | 6,133 | 904,848 |
| 1826 | 7,451 | 1,027,862 | 6,152 | 881,048 |
| 1827 | 8,755 | 1,282,628 | 6,948 | 1,066,748 |
| 1828 | 8,437 | 1,205,983 | 7,331 | 1,089,045 |
| 1829 | 7,683 | 1,098,488 | 7,125 | 1,040,042 |
| 1830 | 8,306 | 1,219,949 | 7,707 | 1,156,468 |
| 1831 | 9,429 | 1,390,223 | 8,640 | 1,318,971 |
| 1832 | 8,012 | 1,185,425 | 7,895 | 1,205,031 |
| 1833 | 7,774 | 1,151,481 | 7,900 | 1,230,642 |
| 1834 | 8 197 | 1,228,864 | 8,015 | 1,223,949 |
| 1835 | 8,290 | 1,220,665 | 8,219 | 1,277,386 |
| 1836 | 8,579 | 1,334,285 | 8,582 | 1,368,822 |
| 1837 | 9,202 | 1,407,365 | 8,919 | 1,420,008 |
| 1838 | 9,866 | 1,525,331 | 10,004 | 1,600,755 |
| 1839 | 11,169 | 1,785,401 | 10,932 | 1,785,641 |
| 1840 | 11,139 | 1,782,216 | 10,997 | 1,803,478 |
| 1841 | 11,734 | 1,885,495 | 11,835 | 1,912,699 |
| 1842 | 12,760 | 2,047,882 | 12,830 | 2,103,414 |
| 1843 | 12,779 | 2,070,660 | 12,806 | 2,137,440 |
| 1844 | 13,082 | 2,112,006 | 12,837 | 2,122,742 |
| 1845 | 13,817 | 2,289,744 | 14,008 | 2,427,552 |

## COMMERCE OF CHINA IN 1845-46.

We proceed to compile from our latest files of papers received from China, a comprehensive view of the commerce of the several ports, so far as it can be gathered from the official reports of British consuls residing in Canton, Shanghai, &c.

The following abstracts of trade under the British flag, at Canton and Shanghai, shows the immense, and, as compared with 1844, the fast growing discrepancy between the amount of British imports and exports, which, says the Chinese Mail of May 7, 1846, we leave to be accounted for by those who have hitherto maintained that China had not produce enough to satisfy its demand for foreign manufactures.

ABSTRACT OF TRADE UNDER BRITISH FLAGS, AT THE PORTS OF CANTON AND SHANGHAI, IN 1845, AS COMPARED WITH 1844.

| | Imports. | | Exports. | | *Increase* in 1845. | | *Decrease* |
|---|---|---|---|---|---|---|---|
| | 1845. | 1844. | 1845. | 1844. | Imports. | Exports. | Imports |
| Canton..... | 10,892,934 | 15,506,240 | 20,734,018 | 17,925,360 | | 2,808,658 | 5,118,306 |
| Shanghai... | 5,522,494 | 2,313,873 | 5,838,882 | 2,267,430 | 2,708,621 | 3,571,445 | |
| | 15,415,428 | 17,820,113 | 26,572,900 | 20,192,790 | 2,708,621 | 6,380,103 | 5,113,306 |

Next to the English ranks the American trade; but as there are no published returns, except those by the British consul of Canton, we can only judge of the transactions at that port, which in value have increased very considerably. According to the official report of F. C. Magregor, the British consul, the United States imports at Canton are as follows:—

| | | |
|---|---|---|
| 1844, in 57 vessels, of the burden of | 23,273 tons..... | $1,320,170 |
| 1845, in 83 " " | 38,658 " ..... | 2,478,048 |

Showing an increase in 1845, over 1844, of 26 vessels, and 15,385 tons; and in value more than 100 per cent, ($1,157,178.)

The export trade of the Americans is equally remarkable with that of the import, as will be seen by the following exhibit:—

| | | |
|---|---|---|
| 1844, in 49 vessels, of the burden of | 21,600 tons..... | $6,686,171 |
| 1845, in 85 " " | 37,959 " ..... | 7,979,834 |
| Increase in exports ..... | | $1,293,663 |

Great Britain and the United States enjoy the largest portion of the Chinese trade; that of other foreign countries with China is comparatively insignificant; but as several European nations have only opened a direct commerce with China since the late war, it is impossible to say to what extent it may be carried, or how far they may rival the commerce of those countries who have been longer in the trade. The entire foreign trade for 1844 and 1845 is comprised in two short tables, a reference to which shows at a glance what progress has been made during the past year at the port of Canton; and we believe that, with the exception of the English and Americans, foreigners have almost confined their operations to that port. The following table, confined exclusively to Canton, shows the amount of trade at that port, under British, American, French, and other flags, during 1845, as compared with 1844:—

FOREIGN TRADE OF CANTON, DURING 1845, COMPARED WITH 1844.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1845. | 1844. | 1845. | 1844. | *Increase* in 1845. | | *Decrease.* |
| Flag. | Imports. | | Exports. | | Imports. | Exports. | Imports |
| British..... | 10,892,934 | 15,596,240 | 20,734,016 | 17,925,360 | | 2,808,658 | 5,112,306 |
| American ..... | 2,478,468 | 1,320,170 | 7,979,864 | 6,686,171 | 1,157,878 | 1,293,693 | |
| French..... | 8,318 | 33,828 | 93,010 | 37,136 | | 55,880 | 25,505 |
| Dutch..... | 77,751 | 231,708 | 685,583 | 572,188 | | 63,345 | 158,957 |
| Danish ..... | 19,871 | 51,990 | 141,129 | | | 141,129 | 32,119 |
| Swedish ..... | 114,817 | 18,284 | 179,615 | 153,688 | 96,583 | 25,927 | |
| German ..... | 123,580 | 5,743 | 419,973 | 122,888 | 117,767 | 297,085 | |
| Lorchas ..... | 625,060 | 614,824 | 219,596 | 7,522 | 210,236 | 212,074 | |
| Others ..... | 22,482 | 60,517 | 163,688 | 9,002 | | 154,686 | 38,035 |
| Total $ a 4s. 4d..... | 14,062,811 | 17,843,249 | 30,566,426 | 25,518,949 | 1,582,464 | 5,052,477 | 5,362,922 |

The trade of Foo-chow-foo, for the year, is quite insignificant. The gross amount of import is £72,147 17s., of which £67,820 1s. 4d. was carried away by the ships which brought it, so that the actual sales of British goods were £4,327 15s. 8d.; the exports, *in the aggregate*, being £683 4s. 3d. The Americans appear to have been more successful at this port. They imported in three vessels goods amounting in value to £11,513 19s. 10d., of which £4,285 16s. 2d., from Hongkong, was probably on British account; and their exports were £776 5s.

The returns from Shanghai exhibit a great increase—though scarcely greater than was anticipated. The imports for 1845 are £1,082,207 against £501,835 the previous year; the exports, £1,259,091, against £487,528. In cotton goods the imports exceed those of Canton, the respective quantities being:—Shanghai, 1,283,875 pieces; Canton, 875,020. In 1845, Shanghai imported 426,563 pieces of cotton fabrics; there is, therefore, an increase on the year of upwards of 850,000 pieces.

It is matter of regret that the United States has not taken measures to procure, through its consuls, accurate statements of the trade, &c., of the several ports of China. This neglect should be remedied; almost all our information on the subject is derived from the pains-taking officials of the British government.

EXPORT OF TEAS FROM CHINA TO THE UNITED STATES,

*From 30th June, 1845, to 1st July, 1846; with export of Silk and Sundries to the United States, in 41 vessels; derived from the "Chinese Repository."*

1845.

| Vessels. | Date. | Young hyson. | Hyson. | Hyson skin. | Twankay. | Gunpowder. | Imperial. |
|---|---|---|---|---|---|---|---|
| Airone | September 13, | 55,478 | ..... | 729 | ..... | 18,081 | 10,761 |
| Huntress | " 23, | ..... | ..... | ..... | ..... | 2,400 | 5,866 |
| Tonquin | October 24, | 148,828 | ..... | ..... | ..... | 12,465 | 8,080 |
| Inca | November 13, | 1,667 | ..... | 25,732 | ..... | 2,850 | 2,850 |
| Panama | " 28, | 341,260 | 13,076 | 61,018 | 47,608 | 20,722 | 23,233 |
| Heber | " 30, | 250,138 | 19,346 | ..... | ..... | 5,325 | 8,782 |
| Howqua | " 30, | 824,978 | 8,906 | 18,196 | 8,314 | 1,940 | 11,340 |
| John Q. Adams | December 9, | 321,831 | 14,950 | 26,293 | 93,411 | 27,311 | 20,045 |
| Ann McKim | " 6, | 152,597 | 17,667 | ..... | 24,829 | 45,047 | 22,857 |
| Mary Ellen | " 23, | 153,481 | 8,140 | 62,131 | 69,645 | 9,449 | 7,112 |
| Montreal | " 26, | 381,205 | 42,503 | 36,811 | ..... | 15,578 | 14,300 |
| Horatio | " 27, | 322,288 | 47,316 | 49,194 | 25,794 | 58,577 | 36,913 |
| Clarendon | " 29, | 433,479 | 51,765 | 108,605 | ..... | 79,610 | 54,007 |
| Lenox | " 30, | 68,171 | ..... | ..... | ..... | ..... | ..... |

1846.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Henry | January 2, | 310,887 | 12,584 | 29,292 | 66,020 | 14,595 | 11,236 |
| Montauk | " 7, | 270,168 | 5,888 | 10,716 | 2,658 | 90,717 | 56,886 |
| Eliza Ann | " 14, | 210,720 | 11,005 | 31,285 | ..... | 42,922 | 24,749 |
| Cohota | " 14, | 470,856 | 19,318 | 95,193 | 20,887 | 47,852 | 86,490 |
| Leland | " 17, | 230,635 | 19,058 | ..... | ..... | 60,985 | 41,201 |
| Oneida | " 19, | 186,625 | 77,892 | 24,662 | 89,030 | 100,749 | 67,856 |
| Grafton | " 20, | 52,597 | ..... | ..... | ..... | 37,653 | 20,338 |
| Rainbow | " 24, | 260,702 | 62,910 | 20,259 | 30,657 | 59,205 | 41,551 |
| Geneva | " 31, | 177,767 | 44,876 | ..... | 107,145 | 50,434 | 22,101 |
| Ann Maria | February 8, | 273,428 | 10,628 | ..... | 9,168 | 32,719 | 17,662 |
| Loochoo | " 22, | 284,900 | 60,729 | 47,897 | 34,881 | 43,858 | 80,164 |
| Natchez | " 25, | 203,311 | 23,842 | ..... | 77,500 | 24,570 | 15,129 |
| Tartar | " 25, | 165,882 | 47,929 | 52,806 | 75,897 | 33,149 | 27,770 |
| Paul Jones | March 2, | 404,268 | 48,081 | ..... | 25,598 | 57,894 | 36,781 |
| Medora | " 9, | 191,184 | 29,556 | 3,427 | 68,456 | 11,088 | 7,171 |
| Wissahickon | " 23, | 24,203 | 4,358 | 6,958 | ..... | 7,845 | 3,284 |
| Lucas | " 30, | 185,658 | 42,449 | 61,703 | 10,288 | 31,224 | 17,920 |
| Helena | April 1, | 373,151 | 28,688 | 33,661 | 100,679 | 24,343 | 29,576 |
| Douglass | " 24, | 241,418 | 7,645 | 11,482 | 42,947 | 18,719 | 16,332 |
| Zenobia | " 28, | 247,494 | 4,364 | 74,496 | 59,877 | 17,266 | 18,502 |
| Albion | May 8, | 194,370 | 13,545 | 32,401 | ..... | 20,261 | 16,310 |
| John G. Coster | " 15, | 129,890 | 89,289 | 100,694 | 128,321 | 67,086 | 40,261 |
| Jas. Boorman | June 1, | 86,474 | 19,005 | 21,704 | 62,198 | 8,803 | 7,330 |
| Akbar | " 21, | 217,609 | 16,240 | 97,092 | 79,204 | 11,843 | 7,798 |
| Candace | " 23, | 59,517 | ..... | ..... | 78,156 | 5,021 | 5,360 |
| T. W. Sears | " 27, | 168,646 | 32,100 | 48,258 | 15,181 | 25,368 | 13,685 |
| | Total pounds... | 8,693,781 | 905,566 | ..... | 2,588,776 | 1,253,709 | 854,043 |
| Season of 1844-45... | " " ... | 9,171,298 | 358,915 | ..... | 2,654,859 | 941,065 | 674,978 |
| " 1843-44... | " " ... | 6,800,419 | 539,794 | ..... | 1,788,291 | 597,088 | 456,945 |

EXPORT OF TEAS—CONTINUED.

| 1845. Vessels. | Souchong. | Powchong. | Pekoe. | Oolong. | Green. | Black. | Total. |
|---|---|---|---|---|---|---|---|
| Airone | 4,849 | .... | .... | .... | 84,099 | 4,849 | 88,948 |
| Huntress | 280 | 8,034 | .... | .... | 7,766 | 3,314 | 11,080 |
| Tonquin | 53,027 | 360 | 4,798 | 10,696 | 164,388 | 168,806 | 338,174 |
| Inca | 40,550 | 75,738 | 4,066 | .... | 33,129 | 120,154 | 153,483 |
| Panama | 98,561 | 11,237 | .... | .... | 506,917 | 101,798 | 608,715 |
| Heber | 33,574 | 45,269 | .... | .... | 283,541 | 78,243 | 362,384 |
| Howqua | 32,061 | 18,100 | .... | 25,730 | 368,674 | 75,291 | 444,365 |
| John Q. Adams | 80,956 | 37,613 | 16,946 | 7,495 | 503,841 | 143,010 | 646,851 |
| Ann McKim | 84,485 | .... | .... | .... | 262,097 | 84,485 | 347,482 |
| Mary Ellen | 5,897 | 20,457 | .... | 16,008 | 309,908 | 42,362 | 352,270 |
| Montreal | 28,417 | 55,543 | .... | 9,496 | 490,392 | 88,456 | 578,848 |
| Horatio | 17,701 | 8,718 | .... | .... | 540,082 | 26,419 | 566,501 |
| Clarendon | 38,359 | 27,244 | .... | 3,615 | 727,556 | 69,218 | 796,774 |
| Lenox | 55,604 | 6,868 | .... | .... | 63,171 | 62,472 | 125,643 |
| **1846.** | | | | | | | |
| Henry | .... | 27,963 | .... | .... | 437,614 | 27,963 | 465,577 |
| Montauk | .... | 17,022 | .... | .... | 437,028 | 17,022 | 454,050 |
| Eliza Ann | 66,983 | .... | .... | 9,163 | 321,379 | 76,146 | 397,525 |
| Cohota | 82,070 | 20,386 | .... | .... | 689,591 | 102,456 | 792,047 |
| Leland | 2,890 | .... | .... | 26,542 | 360,879 | 29,432 | 390,311 |
| Oneida | 11,252 | 17,341 | .... | 5,804 | 496,814 | 34,497 | 530,811 |
| Grafton | 173,409 | 22,149 | .... | 31,948 | 110,588 | 228,306 | 338,894 |
| Rainbow | 71,779 | 12,105 | .... | .... | 481,284 | 83,884 | 565,168 |
| Geneva | 33,306 | 46,800 | 2,697 | 7,580 | 401,823 | 90,583 | 492,406 |
| Ann Maria | 150,019 | 2,910 | .... | 8,929 | 343,993 | 161,858 | 505,463 |
| Loochoo | 110,795 | 29,318 | .... | 35,267 | 505,429 | 175,380 | 680,809 |
| Natchez | 137,218 | 5,694 | .... | .... | 344,352 | 142,912 | 487,264 |
| Tartar | 57,008 | 36,530 | .... | .... | 402,735 | 93,538 | 496,273 |
| Paul Jones | 69,102 | 66,140 | .... | .... | 572,597 | 135,242 | 707,839 |
| Medora | 87,079 | 9,928 | 2,304 | 801 | 310,882 | 100,112 | 410,994 |
| Wissahickon | 60,003 | 11,635 | .... | .... | 46,078 | 71,638 | 117,716 |
| Lucas | 51,857 | 23,652 | .... | .... | 349,192 | 75,509 | 424,701 |
| Helena | 23,664 | 3,720 | .... | .... | 590,048 | 27,384 | 617,432 |
| Douglass | 131,623 | 32,039 | .... | .... | 338,543 | 163,662 | 502,205 |
| Zenobia | 3,874 | 10,991 | .... | .... | 421,559 | 14,265 | 435,824 |
| Albion | 4,791 | .... | .... | .... | 274,887 | 4,791 | 279,678 |
| John G. Coster | 275,488 | 25,360 | .... | .... | 565,491 | 300,848 | 866,339 |
| Jas. Boorman | 60,694 | 32,993 | .... | .... | 265,514 | 93,687 | 359,201 |
| Akbar | 309,276 | 82,791 | 4,429 | 6,483 | 426,780 | 402,979 | 832,759 |
| Candace | 181,006 | 45,942 | .... | 15,307 | 148,054 | 242,255 | 390,309 |
| T. W. Sears | 247,054 | 51,988 | .... | .... | 303,238 | 299,042 | 602,280 |
| | 3,064,160 | 946,878 | 35,435 | 220,294 | 14,235,825 | 4,266,567 | 18,502,392 |
| | 5,280,865 | 1,301,965 | 69,285 | 298,353 | 13,801,115 | 6,950,468 | 20,751,583 |
| | 3,133,133 | 799,622 | 60,178 | 132,594 | 10,131,837 | 4,125,527 | 14,257,364 |

Besides the above named 40 vessels, the Talbot sailed on the 22d July, with a cargo of drugs and sundries, making the aggregate despatches from China to the United States, 41 vessels, during the season; the Ann McKim was laden at Shanghai, and the Montauk took there a portion of her cargo. The Talbot, Huntress, and Lenox, touched at Manilla, to fill up.

We give below the following table, specifying the various articles exported to the United States:—

EXPORT OF SILK AND SUNDRIES TO THE UNITED STATES, ON THE ABOVE NAMED 41 VESSELS.

| | | | | | |
|---|---|---|---|---|---|
| Pongees | pieces | 54,004 | Cassia | peculs | 7,877 |
| Handkerchiefs | " | 50,975 | Matting | rolls | 23,533 |
| Sarenets | " | 6,167 | Rhubarb | boxes | 1,135 |
| Senshaws | " | 4,085 | Sweetmeats | " | 4,687 |
| Satins | " | 1,982 | Vermillion | " | 176 |
| Damasks | " | 821 | Split rattans | bundles | 1,068 |
| Satin levantines | " | 1,099 | Pearl buttons | boxes | 204 |
| Crapes | " | 199 | Chinaware | " | 644 |
| Crape shawls | " | 132,987 | Fire crackers | " | 20,610 |
| Crape scarfs | " | 10,290 | Aniseed star | " | 159 |
| Sewing silk | lbs. | 630 | Oil of cassia | " | 154 |
| Raw silk | boxes | 436 | Oil of anise | " | 174 |
| Grass cloth | " | 698 | Camphor | peculs | 1,856 |
| Fans and screens | " | 1,168 | Lacquered ware | boxes | 377 |

# JOURNAL OF MINING AND MANUFACTURES.

## PENNSYLVANIA IRON TRADE, 1844-1846.

The following statement of the iron trade of Pennsylvania is derived from the Philadelphia "Commercial List:"—

The supplies of iron sent from the different mines of the State, by the various improvements, from the 1st of December, 1844, to the 30th November, 1845 and 1846, have been,—by the Chesapeake and Delaware Canal:—

| | 1846. | 1845. |
|---|---|---|
| Pig iron.....lbs. | 57,405,226 | 38,183,139 |
| Wrought iron..... | 18,669,843 | 8,103,667 |
| Castings..... | 5,918,897 | 6,336,969 |
| Total..... | 81,993,936 | 52,623,775 |

Or, 36,604 tons of 2,240 lbs.

Of the above amount there were received from the Susquehanna and Tide-water Canal:—

| | 1846. | 1845. |
|---|---|---|
| Pig iron.....lbs. | 50,247,556 | 23,476,562 |
| Wrought iron..... | 14,915,302 | 6,215,611 |
| Blooms..... | 4,352,369 | 5,192,356 |
| Castings..... | 386,129 | 357,907 |

The balance came from Port Deposite, and was brought down in arks, by the Delaware Canal, and taken off at Bristol:—

| | 1846. | 1845. |
|---|---|---|
| Pig iron.....lbs. | 42,764,493 | 34,450,094 |
| Bar and sheet iron..... | 106,389 | 1,553,899 |
| Castings..... | 428,588 | 580,420 |
| Blooms..... | ..... | 1,000 |

By the Schuylkill Canal:—

| | 1846. | 1845. |
|---|---|---|
| Pig and wrought iron.....lbs. | 7,413,440 | 19,786,400 |
| Nails..... | 1,612,800 | 6,348,160 |

Total quantity brought down and carried up by the Reading Railroad:—

| | 1846. | 1845. |
|---|---|---|
| Pig iron and castings.....lbs. | 22,343,270 | 7,106,936 |
| Bar and sheet..... | 9,372,910 | 2,803,588 |
| Blooms..... | 2,459,060 | 1,217,254 |
| Nails and spikes..... | 7,251,670 | 2,990,356 |

By the Columbia Railroad:—

| | 1846. | 1845. |
|---|---|---|
| Pig iron.....lbs. | 2,115,500 | 48,400 |
| Blooms..... | 1,116,300 | 1,572,550 |
| Bar and sheet..... | 9,008,100 | 10,890,900 |
| Castings..... | 434,100 | 620,800 |
| Nails and spikes..... | 21,500 | 99,000 |

Received by the Norristown Railroad:—

| | 1846. | 1845. |
|---|---|---|
| Pig, castings, and rolled.....lbs. | 10,288,789 | 819,616 |
| Nails..... | 1,741,792 | No return. |

RECAPITULATION.

| | Pig iron and castings, pounds. | Wrought, pounds. |
|---|---|---|
| Chesapeake and Delaware Canal..... | 63,824,093 | 18,669,843 |
| Delaware Canal..... | 43,193,081 | 106,389 |
| Schuylkill Canal ..... | 7,413,440 | ..... |
| Reading Railway..... | 22,343,230 | 9,372,910 |
| Columbia Railway..... | 2,549,600 | 9,008,100 |
| Norristown Railway ..... | 10,288,789 | ..... |
| Total..... | 149,112,233 | 37,157,242 |
| | Or 66,568 tons. | Or 15,588 tons. |

| | Nails and spikes, pounds. | Blooms, pounds. |
|---|---|---|
| Reading Railway..... | 7,251,670 | 2,459,060 |
| Norristown Railway ..... | 1,741,792 | ..... |
| Columbia Railway..... | 21,500 | 7,251,670 |
| Schuylkill Canal..... | 1,612,800 | ..... |
| Tide-water Canal..... | ..... | 4,352,369 |
| Total..... | 10,627,772 | 14,063,099 |
| | Equal to 101,217 kegs. | Or 6,278 tons. |

## THE COAL TRADE OF PENNSYLVANIA.

We are indebted to C. G. CHILDS, Esq., the editor of the Philadelphia "Commercial List," for the tabular statements and remarks which follow. Few men are more industrious in collecting statistics of trade; and the accuracy which marks the labors of Col. Childs, can scarcely be questioned:—

The coal trade of Pennsylvania is attracting, more and more, the attention of the country. No thinking person can contemplate its progress, without being deeply impressed with the importance to our Union, of the State in which such vast resources of fuel are found. Were Pennsylvania annihilated, with all her mountains of coal and iron, how melancholy would be the condition of her surviving confederates, in regard to these two great requisites of civilized life.

If the importance of the coal trade is inconceivably great, its progress has been astonishing. Anthracite coal was first used as fuel (on tide-water) in 1820, and the total supply then sent to market was 365 tons!—a quantity smaller than that now annually consumed by hundreds of single establishments. We now find a single iron manufacturing company in our State, consuming 60,000 tons of anthracite, and 100,000 bushels of bituminous coals, annually.

From being regarded as a doubtful article of combustion at all, anthracite coal has come to be largely used for domestic purposes, for the production of steam in manufacturing establishments, for propelling steamboats and railroad locomotives, and more recently for the manufacture of iron, for which purpose it is employed on an immense scale. In 1840 there were no anthracite furnaces in full and successful operation. There are now 40 furnaces in blast, many of them of the largest class. Within the last three years, 18 rolling mills have been erected, which consume hundreds of thousands of tons of coal annually. This branch of business, so important in a national view, is destined to increase rapidly, as the demand for railroad iron increases in almost every section of our country. It is only by collecting details and uniting them, that the extent and importance of the coal trade is made apparent. It has already more than trebled the coasting trade of Philadelphia, and pays annually a freight on the shipments coastwise from this port, of more than a million of dollars. If this trade is of so much importance in this period of its comparative infancy, what will it be in its full growth?

About the year 1837, a report was made to the government by Major Bache of the Topographical Engineers, on the subject of an artificial harbor or breakwater, at Cape May, in which he states, that the insurable interest created by the coal trade passing around Cape May alone, already amounts to more than twenty-two millions of dollars per annum, estimating merely the vessels in ballast coming after it, and the value of the vessel and cargo carrying it to the various ports at which it is wanted. Many of these vessels

bring us supplies from the ports they come from, at merely nominal freight, instead of ballast—plaster, fish, lumber, salt, and other articles required for consumption in the interior, which add materially to the resources of the canals and railroads.

In England, coal appears to have been first used as fuel about the close of the 12th century. In 1239, Henry III. granted a charter to the burgesses of Newcastle, to dig for coal; which is the first legal mention of the article on record. As early as 1140, we find among the Leges Burgorum an enactment giving special privileges to the inbringers of fuel, which is described as being "wood, turves and peats." The English coal trade, which now amounts to forty millions of tons annually, may indicate to us something of what we have reason to predict in our future career.

Perhaps few persons have distinctly considered the aggregate expenditure in the improvements designed to facilitate the transportation of coal from our vast coal fields. Let us look at some definite statistical account of these operations:—

NAMES AND COST OF THE CANALS AND RAILROADS LEADING TO THE COAL MINES.

LEHIGH COAL REGION.

| | Canals, length. | R'r'ds, length. | Cost. |
|---|---|---|---|
| The Lehigh Navigation extends from Easton to Whitehaven, 71 miles; and thence to Stoddartsville, 16 miles, there is an improved navigation | 87 | .. | $4,555,000 |
| Whitehaven and Wilkesbarre Railroad, from Whitehaven to Wilkesbarre, with 3 inclined planes and 1 tunnel | .. | 20 | 1,350,000 |
| Mauch Chunk Railroad, from Summit and Room Run Mines to Mauch Chunk, and back tracks | .. | 36 | 600,000 |
| Beaver Meadow Railroad, from the Beaver Meadows to landing on Lehigh Canal | .. | 26 | 360,000 |
| Hazleton Railroad, to Lehigh Canal | .. | 10 | 120,000 |
| Buck Mountain Railroad, to Lehigh Canal | .. | 4 | 40,000 |
| Summit Railroad | .. | 2 | 20,000 |
| Total Lehigh improvements | 87 | 98 | $7,045,000 |

SCHUYLKILL REGION.

| | | | |
|---|---|---|---|
| The Schuylkill Navigation commences at Philadelphia and terminates at Port Carbon, (including cost for enlarging to this time) | 108 | .. | $5,675,000 |
| The Reading Railroad extends from Richmond to Mt. Carbon, with a branch from the Falls of Schuylkill to the Columbia Railroad, at Peters' Island, including cost of locomotives, cars, &c | .. | 93 | 11,000,000 |
| Little Schuylkill Railroad, between Port Clinton & Tamaqua, cost $280,000, and new rails now laying, $220,000. | .. | 20 | 500,000 |
| Mine Hill and Schuylkill Haven Railroad, cost $480,000; new rails, and 7½ miles extension to Swatara, $120,000. | .. | 55 | 550,000 |
| Danville & Pottsville Railroad, unfin'd, and only part in use. | .. | 29½ | 680,000 |
| Mount Carbon Railroad | .. | 7 | 155,000 |
| Mount Carbon and Port Carbon Railroad | .. | 2½ | 120,000 |
| Schuylkill Valley Railroad | .. | 14 | 300,000 |
| Mill Creek Railroad | .. | 7 | 120,000 |
| Railroads constructed by individuals—aggregate | .. | 70 | 180,000 |
| Railroads under ground in the mines | .. | 60 | 75,000 |
| Total Schuylkill | 108 | 357 | $19,365,000 |

OTHER PLACES.

| | | | |
|---|---|---|---|
| Lykens Valley Railroad, to Susquehanna Canal | .. | 16 | $200,000 |
| Wisconisco Canal, to Millersburgh, on Susquehanna | 12 | .. | 70,000 |
| Swatara Railroad, to Union Canal | .. | 4 | 20,000 |
| Lorberry Railroad | .. | 4 | 20,000 |
| Total other places | 12 | 24 | $310,000 |

RECAPITULATION.

| | Canals, length. | Railroads, length. | Cost. |
|---|---|---|---|
| Lehigh Improvements | 87 | 98 | $7,045,000 |
| Schuylkill | 108 | 357 | 19,365,000 |
| Other places | 12 | 24 | 310,000 |
| Total | 207 | 479 | $26,720,000 |
| To these must be added the Delaware and Hudson Canal, 108 miles long, and railroad 24 miles, cost | | | 3,250,000 |
| Morris Canal, 108 miles long, constructed to carry coal to N. York, cost | | | 4,000,000 |
| Grand total | | | $33,970,000 |

Total length of canals..... 417 miles. | Total length of railroads.... 503 miles.

The coal trade gives employment to a very great number of persons. Indeed, nearly all the cost of the article is the result of labor. In its locality, it is worth only from 25 to 50 cts. per ton; averaging 35 cts. per ton. But in all the operations connected with mining and transportation, a vast amount of labor is employed. We must take into account, not only the miners and the boatmen and the breakmen on the canals and railroads, and the hands on board the transporting vessels, and the cartmen at the places of delivery, but also the thousands employed at some time, in making the necessary railroads and canals, the locomotives and stationary engines, the boats, &c., &c.

The sums thus invested in providing avenues for the coal trade may be computed; but the enhanced value of lands, and the property which appears in smiling villages, where once roamed the panther and the bear, baffle all our attempts at calculation.

These exhibitions of the extent of the coal trade, and of its importance to the Union, lead us to ask whether this interest has not a very strong claim upon the government for protection and encouragement If not, how could such a claim be conceived of as possible? What opperations can be more intimately connected with the prime elements of national growth and power? What political wisdom can discern the propriety of withholding the protecting power of the government here, unless it be that which denies, altogether, the justice and policy of any restrictions on the disheartening competition of other nations, which is fitted to keep back our own enterprises for centuries?

The proximity of the Nova Scotia mines to the New England States—the immense capital of the British Mining Association, (the present holders of the original grant to the Duke of York,) and the facilities they possess for bringing their coal into this country, to the destruction of our own industry, seem to require some legislative enactment in behalf of this important trade.

As early as July, 1789, and soon after the adoption of the Federal Constitution, a law was passed laying a duty of 2 cents per bushel on imported coal. (See Pub. Doc., p. 72.) August 10th, 1790, the duty was increased to 8 cents per bushel. Again, on the 3d of May, 1792, the duty was increased to 4½, and on the 7th of June 1794, to 5 cents per bushel. This duty was continued under all the party changes, until April 27th, 1816, when the duty was changed to 5 cents per heaped bushel. In 1824, May 26th, after our coal had begun to be useful, the duty on imported coal was increased to 6 cents per bushel, or $1 50 per ton; Gen. Jackson, then a member of Congress, voting in favor of this duty. In 1842, the duty on imported coal was raised to $1 75 per ton; but even with this check to its importation, some supplies were brought in, as will be seen by a subsequent statement taken from official documents. By the present tariff the duty is only about 45 cents per ton on board, and may be reduced to 35 cents.

It thus appears that Washington, Madison, Monroe, Adams and Jackson, gave their high sanction to the protection of the coal interests—an interest of the importance of which even those far-reaching minds must have formed a very inadequate idea. Of the use of coal in the production of steam, it is not easy to say what supposition and expectations it would be safe to pronounce extravagant. In an address lately delivered, a Mr. Pierpont indulged in the following illustration:—

"It required twenty thousand men twenty years to build one of the pyramids of Egypt. The same number of men might, by the aid of steam, accomplish as much work now in twenty-four hours. Cylindrical boilers are the seven-league boots of the country."

In reference to the use of coal in the manufacture and working of iron, it is pertinent to quote the remarkable language of Mr. Locke, in his Essay on the Understanding, where he says: "Were the use of iron lost among us, we should, in a few ages, be unavoidably reduced to the wants and ignorance of the ancient savage Americans." And, whether we can fully subscribe to this sentiment or not, we cannot object to the beautiful declara-

tion of the same philosopher, that he who first made use of iron, "may be truly styled the father of arts, and author of plenty."

Our large table shows the comparative quantity of anthracite coal sent to market from the commencement of the trade in 1820 to the close of the past year. Nearly all the above returns are official, being obtained by us from the different regions. It will be seen they vary in several cases from the reports of the Miners' Journal, the only paper besides our own that has pretended to keep up original yearly statements of this important trade.

Anthracite coal was first used as fuel (on tide-water) in this country in 1820, when the total supply sent to market was only 365 tons. If we divide the 27 years that have elapsed since coal was first used, into three periods of nine years each, it will be seen that the total supply from all the mines in the first period, ending with the close of 1828, was 239,845 tons; second period, ending in 1837, 3,826,829 tons; third period, ending with 1846, 11,570,141 tons; showing the annual average receipts for the first nine years, to be 26,648 tons; second period, 454,534 tons; and third period, 1,285,571; from which it appears that the quantity consumed during the last nine years was nearly three times as large as during the preceding eighteen years.

Now, by way of contrast, let us take the total amount of capital invested in all the manufacturing establishments at Lowell, and see how it compares with the above expenditures. During a visit to that remarkable city last summer, we obtained a copy of the "Statistics of Lowell Manufactures for 1846." From it we learn the following particulars. The amount of capital invested in all the factories, including buildings, machinery, houses for the operatives, &c., is as follows:—

| | Capital. | | Capital. |
|---|---|---|---|
| Merrimack Man. Co..... | $2,000,000 | Tremont Mills Man. Co.... | $600,000 |
| Hamilton ..... | 1,200,000 | Boott Cotton Mills..... | 1,200,000 |
| Appleton ..... ... | 600,000 | Massachusetts..... | 1,200,000 |
| Lowell..... | 600,000 | Lowell Machine Shop..... | 300,000 |
| Middlesex..... | 750,000 | | |
| Suffolk..... .... | 600,000 | Total capital ..... | $10,550,000 |
| Lawrence..... | 1,500,000 | | |

Thus, it will be seen, that the whole amount invested in all the manufactories at Lowell, is less than one-third of the sum actually expended in constructing avenues for bringing Pennsylvania coal to market. The annual shipments of coal coastwise from this port have been as follows:—

| Years. | | | Tons. | Years. | | | Tons. |
|---|---|---|---|---|---|---|---|
| 1822.... | 4 | vessels, carrying | 181 | 1830.... | 644 | vessels, carrying | 68,137 |
| 1823 ... | 11 | " | 1,123 | 1831.... | 568 | " | 55,640 |
| 1824.... | 40 | " | 3,958 | 1832.... | 1,592 | " | 158,442 |
| 1825.... | 190 | " | 19,376 | 1833.... | 2,010 | " | 198,168 |
| 1826.... | 271 | " | 27,418 | 1834.... | 1,575 | " | 156,154 |
| 1827.... | 397 | " | 39,327 | 1835.... | 2,861 | " | 267,189 |
| 1828.... | 469 | " | 45,915 | 1836.... | 3,225 | " | 344,812 |
| 1829.... | 429 | " | 47,100 | | | | |

During the subsequent nine years our returns are incomplete.

The following statement, showing the number and class of vessels which cleared with coal from the Delaware River, during the past year, will serve to illustrate the value of this branch of our business, in a commercial point of view. During the year 1846, there were cleared from Richmond, the depot of the Reading Railroad Company—

| | | | |
|---|---|---|---|
| Ships ..... | 1 | Steamboats..... | 14 |
| Barks..... | 23 | Barges ..... | 928 |
| Brigs ..... ..... | 341 | Boats ..... | 1,150 |
| Schooners ..... | 4,092 | | |
| Sloops ..... | 935 | Total ..... | 7,485 |

The quantity of coal shipped in the above vessels was 892,464 tons.

There were also cleared from this city, and at Bristol, during the same period, laden with Lehigh coal, 1,468 vessels, exclusive of boats, carrying 181,792 tons of coal.

Total number of clearances from the port of Philadelphia in 1846, 8,953—all laden with coal, and carrying 1,074,255 tons, in addition to that shipped in boats from the Lehigh. The quantity of coal which has passed through the Delaware and Raritan Canal to New York has been as follows:—

| | | | |
|---|---|---|---|
| 1842 .....tons | 171,754 | 1845.....tons | 372,072 |
| 1843..... ..... | 198,382 | 1846 ..... .... | 339,924 |
| 1844. ..... | 237,496 | | |

## PENNSYLVANIA ANTHRACITE COAL TRADE,

FROM ITS COMMENCEMENT, IN 1820, TO THE CLOSE OF 1846; SHOWING RECEIPTS FROM VARIOUS MINES, TOTAL SUPPLY, AND ANNUAL INCREASE OF THE TRADE.

| Year. | Lehigh. | Beaver Meadow. | Hazleton. | Sugar Loaf. | Buck Mount'n | Sum'lt & W'sbarre | Total Lehigh. | Schuylkill. | Little Sch'kill. | Total Schuylkill. | Lacka-wanna. | Pine Grove. | Shamo-kin. | Wyoming | Total supply. | Annual increase & decrease. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1820 | 365 | .... | .... | .... | .... | .... | 365 | .... | .... | .... | .... | .... | .... | .... | 365 | .... |
| 1821 | 1,073 | .... | .... | .... | .... | .... | 1,073 | .... | .... | .... | .... | .... | .... | .... | 1,073 | 708 |
| 1822 | 2,240 | .... | .... | .... | .... | .... | 2,240 | .... | .... | .... | .... | .... | .... | .... | 2,240 | 1,170 |
| 1823 | 5,823 | .... | .... | .... | .... | .... | 5.823 | .... | .... | .... | .... | .... | .... | .... | 5,823 | 3,583 |
| 1824 | 9,541 | .... | .... | .... | .... | .... | 9,541 | .... | .... | .... | .... | .... | .... | .... | 9 541 | 3,718 |
| 1825 | 28,393 | .... | .... | .... | .... | .... | 28,393 | 6,500 | .... | 6,500 | .... | .... | .... | .... | 34,893 | 25,352 |
| 1826 | 31,280 | .... | .... | .... | .... | .... | 31,280 | 16,767 | .... | 16,767 | .... | .... | .... | .... | 48,047 | 13,154 |
| 1827 | 32,074 | .... | .... | .... | .... | .... | 32,074 | 31,360 | .... | 31,360 | ... | .... | .... | .... | 63,434 | 15,387 |
| 1828 | 30,232 | .... | .... | .... | .... | .... | 30,232 | 47,284 | .... | 47,284 | .... | .... | .... | .... | 77,516 | 14,082 |
| 1829 | 25,110 | .... | .... | .... | .... | .... | 25,110 | 79,972 | .... | 79,972 | 7,000 | .... | .... | .... | 112,083 | 34,567 |
| 1830 | 41,750 | .... | .... | .... | .... | .... | 41,750 | 89,984 | .... | 89,984 | 43,000 | .... | .... | .... | 174,734 | 62,651 |
| 1831 | 40,966 | .... | .... | .... | .... | .... | 40,966 | 81,854 | .... | 81,854 | 54,000 | .... | .... | .... | 176,820 | 2,086 |
| 1832 | 70,000 | .... | .... | .... | .... | .... | 70,000 | 195,271 | 14,000 | 209,271 | 84,600 | .... | .... | .... | 363,871 | 187,051 |
| 1833 | 123,000 | .... | .... | .... | .... | .... | 123,000 | 212,971 | 40,000 | 252,971 | 111,777 | .... | .... | .... | 487,748 | 123,877 |
| 1834 | 106,244 | .... | .... | .... | .... | .... | 106,244 | 226,692 | 34,000 | 226,692 | 43,700 | .... | .... | .... | 376,636 | 111,112d. |
| 1835 | 131,250 | .... | .... | .... | .... | .... | 131,250 | 298,508 | 41,000 | 339,508 | 98,845 | .... | .... | .... | 596,603 | 119,967 |
| 1836 | 146,522 | .... | .... | .... | .... | .... | 146,522 | 397,045 | 35,000 | 432,035 | 104,500 | .... | .... | .... | 683,057 | 86,454 |
| 1837 | 192,320 | 33,617 | .... | .... | .... | .... | 225,937 | 492,152 | 31,000 | 523,152 | 114,387 | 17,000 | .... | .... | 881,476 | 198,419 |
| 1838 | 159,564 | 38,426 | 16,221 | .... | .... | .... | 214,211 | 420,875 | 13,000 | 433,875 | 76,321 | 13,000 | .... | .... | 737,407 | 154,069d. |
| 1839 | 142,071 | 38,429 | 34,000 | 7,350 | .... | .... | 221,850 | 433,608 | 9,000 | 442,608 | 122,300 | 20,639 | 11.930 | .... | 819,328 | 81,921 |
| 1840 | 102,183 | 43,619 | 50,366 | 29,039 | †54 | .... | 225,288 | 431,291 | 20 000 | 451,291 | 148,470 | 23,860 | 15,505 | .... | 864,414 | 45,086 |
| 1841 | *78,164 | *26,232 | *21,263 | *17,170 | .... | .... | *142,828 | 394,699 | 40,000 | 434,699 | 192,280 | 17,653 | 21,463 | .... | 808,913 | 55,501d. |
| 1842 | 163,762 | 45,422 | 31,012 | 31,930 | .... | .... | 272,129 | 513,891 | 27,000 | 540,891 | 205,253 | 32,381 | 10,050 | 47,346 | 1,108,050 | 299,137 |
| 1843 | 138,825 | 54,729 | 44,579 | 26,814 | 2,844 | .... | 267,734 | 639,428 | 31,000 | 670,428 | 227,605 | 22,905 | 9,900 | 57,740 | 1,256,312 | 148,262 |
| 1844 | 219,245 | 70,379 | 73,625 | 2,866 | 13,749 | .... | 377,821 | 778,500 | 57,000 | 835,500 | 251,005 | 34.916 | 13,087 | 114,906 | 1,627,235 | 370,923 |
| 1845 | 257,740 | 77,227 | 70,266 | 1,843 | 23,914 | .... | 429,159 | 1,007,424 | 76,000 | 1,083,424 | 266,072 | 47,928 | 9,900 | 178,401 | 2,014,888 | 387,653 |
| 1846 | §274,663 | 85,648 | 98,156 | .... | 46,108 | ‡17,773 | 522,297 | 1,145,583 | 91,000 | 1,286,583 | 318,000 | 56,139 | 12,572 | 188,003 | 2,383,594 | 318.705 |

* Great freshet, which injured the canal. † 54 tons by Tamanend Company. § 109,652 from Room Run. ‡ Including 5,865 from Wilkesbarre.

The total number of arrivals at new York from foreign ports in 1846, was 2,293 vessels. Suppose these vessels to average 400 tons each, and the whole tonnage would amount to 917,200 tons. The number of vessels cleared from Philadelphia, laden with coal, during the same period, was 8,953 vessels, averaging 150 tons each—total tonnage of 1,342,950 tons, or upwards of 425,000 tons more than the whole tonnage arrived from foreign ports at New York.

As a nursery for seamen, the Pennsylvania coal commerce, even in its infancy, is entitled to consideration in a national point of view. There is no department of our commerce, if we except the whale fisheries, which gives employment to so many vessels, or to so great an aggregate tonnage, or which calls into service so many seamen. In any emergency which might arise in the defence of our extended and dangerous sea-coast, here would be found a body of hardy, bold and active men, trained for dangerous service, and equal, in the most important qualifications, to the best seamen in our national vessels. Great Britain has for many years fostered her coal trade, with a view to the rearing up of seamen to man her "wooden walls." Admiral Collingwood, and many others of her naval heroes, were trained on board British colliers.

It is not saying too much to assert, that the coal of Great Britain has been one of the chief sources of her prosperity—a prosperity which mines like those of Peru and Mexico would perhaps never have secured. That shrewed and sagacious writer, McCulloch, observes in his Commercial Dictionary—"It is the possession of her coal mines which has rendered Britain, in relation to the whole world, what a city is to the rural district which surrounds it—the producer and dispenser of the rich products of art and industry." If this remark be just, how clear is it that Pennsylvania must hold such a relation to the United States, if not our whole continent. The more our position is contemplated, in the light either of history or of sound judgment in regard to the elements of prosperity, the more clearly must it be seen, that the coal and iron of our mountains have an importance to our nation not easily exaggerated.

On what grounds can our government reasonably hesitate to put forth its best energies for the sustaining of the great coal and iron interests of Pennsylvania—a Pennsylvania interest indeed, geographically, but a national interest in all its great ultimate bearings, if such a thing as a national interest can be known or conceived of?

## THE BRITISH COPPER TRADE.

The merchants, coppersmiths, &c., of Birmingham, have agreed to memorialise the Lords of the Treasury on the evils, impolicy, and hardships, to which they are subjected by the excessive duty now levied on copper ore. The memorial, in plain and succinct terms, details the disadvantages which its promoters have to encounter, and shows that in consequence of the duty now levied, the falling off in the revenue, derivable from copper ore, during the last year, was no less than 21 per cent. The memorial concludes by urging the following upon the attention of the Lords of the Treasury:—

"1. That an extensive trade in the manufactures of this town and neighborhood is carried on to the states of South America and the island of Cuba, and that your memorialists are much interested in the unrestricted import of foreign copper ore, as it is the most available return for the value of their exports.

"2. That there has been of late years a great falling off in the export to the Continent and America of British manufactured articles of brass and copper, in consequence of the same being supplied by manufacturers in Belgium and France, who have unrestricted trade in foreign copper and copper ore.

"3. That this is a very important branch of the manufacturing trade of this town and neighborhood; the metals brass and copper entering into the composition of most of the articles on which the largest portion of the population are employed.

"4. That the price of copper in this country, notwithstanding the decline in the value of the manufactured articles abroad, has maintained a high range for the last two years; and that your memorialists consider that this has been supported by the restricted introduction of foreign copper ore, which is peculiarly adapted to the preparations of fine metal much required in the Birmingham manufactures."

A similar movement is being made by some of the merchants of Liverpool. The memorial, from the latter place, contains some clauses referring to the injury sustained by ship-owners in consequence of the decline of the trade.

# JOURNAL OF BANKING, CURRENCY, AND FINANCE.

## BANKS OF BALTIMORE.

THE following condensed review will show the relative position of some of the leading items, and also affords a comparison with the statements of former years:—

CONDENSED VIEW OF THE CONDITION OF THE BANKS OF THE CITY OF BALTIMORE, ON THE FOURTH OF JANUARY, 1847.

| Banks. | Capital. | Investment in stocks. | Discounts. | Specie. | Circulation. | Deposits. |
|---|---|---|---|---|---|---|
| Merchants' | $1,500,000 | $150,876 | $2,000,739 | $252,130 | $205,880 | $408,092 |
| Baltimore | 1,200,000 | 22,126 | 1,677,765 | 300,205 | 230,592 | 560,774 |
| Union | 916,350 | 13,258 | 1,237,662 | 124,315 | 143,340 | 298,210 |
| Farmers' & Planters' | 600,625 | 38,220 | 1,047,752 | 236,030 | 406,076 | 275,224 |
| Mechanics' | 589,812 | 7,211 | 1,037,012 | 206,519 | 204,818 | 578,410 |
| Comm'cial & Farmers' | 215,560 | 58,231 | 829,258 | 229,830 | 171,769 | 367,068 |
| Farmers' & Merchants' | 393,560 | 132,528 | 426,960 | 63,905 | 99,603 | 108,202 |
| Chesapeake | 337,092 | 120,814 | 500,787 | *89,648 | 102,278 | 238,066 |
| Marine | 309,200 | 75,374 | 437,410 | 99,184 | 114,730 | 204,492 |
| Western | 308,608 | 11,354 | 521,204 | 187,556 | 275,060 | 170,736 |
| Franklin | 301,850 | 17,183 | 370,617 | 25,186 | 31,201 | 52,765 |
| | 6,969,359 | 647,200 | 10,082,235 | 1,814,308 | 1,983,248 | 3,261,999 |

| The banks of Baltimore had on | Capital. | Investment in stocks. | Discounts. | Specie. | Circulation. | Deposits. |
|---|---|---|---|---|---|---|
| Jan. 5, 1846. | $3,971,681 | $856,697 | $10,143,299 | $1,861,500 | $2,159,140 | $3,113,750 |
| Jan. 6, 1845. | 6,956,362 | 835,481 | 9,677,773 | 1,885,336 | 1,856,641 | 3,167,180 |
| Jan. 1, 1844. | 7,490,549 | 1,123,724 | 7,551,824 | 3,529,265 | 1,647,559 | 3,652,973 |
| Jan. 2, 1843. | 7,985,638 | 979,747 | 7,895,929 | 2,893,564 | 1,242,397 | 2,384,967 |
| Jan. 3, 1842. | 8,880,118 | 1,508,852 | 8,731,284 | 1,259,785 | 1,169,793 | 2,094,807 |
| Jan. 4, 1841. | 8,826,279 | 1,524,117 | 9,452,575 | 1,317,860 | 1,521,667 | 2,547,226 |
| Jan. 6, 1840. | 9,499,004 | 1,307,004 | 11,784,338 | 1,086,765 | 2,198,867 | 3,224,498 |

In 1844, the Citizens' Bank wound up. The Franklin Bank is included in 1840, and not in 1841, '42, '43 and '44, but is in '45 and '46.

## BANKS IN MASSACHUSETTS.

The annual abstract of the returns from the banks of this State is published in accordance with the law of the commonwealth, as prepared by the secretary, the Hon. John G. Palfrey. The statement shows the state of the banks on the first Saturday of October last. It appears that returns were made by one hundred and five banks —twenty-five of which are in Boston.

| | |
|---|---|
| The whole amount of banking capital is | $31,160,000 00 |
| The bills in circulation amount to | 14,594,914 50 |
| The amount of specie on hand is | 3,054,755 68 |
| Aggregate of loans | 51,326,114 06 |

We find from the returns of the Savings Banks, contained in the same publication, that the whole amount of deposits in those institutions is nearly eleven millions of dollars. In the New Bedford Savings Institution there are 2,102 depositors, and the amount of deposits, $422,553 93. The investment in bank stock amounts to $188,500, and the loans on personal security to $200,458 51. The dividends of this carefully managed institution have averaged 5.1 per cent for the last five years.

* Including $24,550 U. S. Treasury Notes.

## FINANCES OF MASSACHUSETTS, 1846.

The report of the Secretary of the Treasury of this State exhibits the following statement of the finances of Massachusetts, in 1846 :—

| | |
|---|---|
| The receipts of the year amounted to | $568,728.88 |
| The expenditure to | 555,065.31 |

The aggregate amount of receipts includes—

| | |
|---|---|
| Cash on hand, 1st January, 1846 | $7,698.54 |
| Balance on State Tax for 1845 | 66,606.75 |
| Temporary loans | 54,000.00 |
| This sum | $128,305.29 |
| Deducted from the whole receipts | 568,728.88 |
| Leaves | $435,418.50 |

As the ordinary receipts for the year.

| | |
|---|---|
| The amount of the expenditure includes | $90,800.00 |
| 5 per cent stock of 1842. paid in 1846 | 37,140.00 |
| Railroad loans, note to Phœnix Bank | 6,000.00 |
| This sum | $133,940.00 |
| Deducted from the whole expenditure | 555,065.31 |
| Leaves | $421,125.31 |

As the ordinary expenses of the year, showing an excess of ordinary receipts over the expenditures of $14,283.38.

## FINANCES OF NEW JERSEY.

The following summary view of the finances of New Jersey in 1846, is derived from the annual message of the governor of that State :—

| | |
|---|---|
| Balance in the Treasury, January 10, 1846 | $5,278.90 |
| Received during the year, from all sources, including a special loan of $10,000 | 158,669.30 |
| | $163,948.28 |
| Disbursements during the same period, including $10,000 of the special loan above, and $5,000 balance of the loan of the previous year | 155,174.47 |
| Leaving a balance in the Treasury, on January 4th, 1847, of.. | $8,773.81 |

## FINANCES OF PENNSYLVANIA IN 1846.

### RECEIPTS AND EXPENDITURES.

The receipts during the last fiscal year, amounted to $3,529,057.28, to which add the sum of $384,868.09, the balance in the treasury on the 1st of December, 1845, the commencement of the late fiscal year, exclusive of an unavailable deposit in the United States Bank, and the aggregate presents the means of the Treasury for that period. The payments during the same time amounted to $3,529,264.67. Thus:—

| | |
|---|---|
| Receipts during the fiscal year | $3,529,057.28 |
| Balance in the Treasury, November 30, 1845 | 384,886.09 |
| Total revenue | $3,913,943.37 |
| Amount of expenditure during the same period | 3,529,264.67 |
| Balance in the Treasury, November 30, 1846 | $384,678.70 |

# RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

## PHILADELPHIA AND READING RAILROAD.

Col. C. G. Childs, of the "Philadelphia Commercial List," furnishes the following comprehensive history and description of this great public work, which we have reason to know, may be relied on for its general accuracy. About one-third of the stock of this road is owned in Boston, a third in Europe, and the remainder in Philadelphia and other places. It is under very efficient management, and the President of the Company, John Tucker, Esq., is admirably fitted for the station that he occupies:

This railroad was projected in 1833, a charter obtained in 1834, surveys made the same year, and 41 miles put under contract and construction in 1835.

It was originally designed for its present purpose, an outlet or avenue to market for the Schuylkill Coal Region; but its first charter extended only to that town which has the honor of giving it a name, the Borough of Reading. 59 miles from its terminus on the Delaware river, near Philadelphia; as the right of constructing a railroad between Reading and Port Clinton, 20 miles, had already been granted to another corporation, the "Little Schuylkill Railroad Company," terminating at the latter point. From insufficient means, this company were unable to extend their road, and yielded their right and charter to the Reading Railroad Company, who, with a further extension of their charter, beyond Port Clinton to Pottsville, went into an active prosecution of the whole work; from Pottsville to the Delaware, 93 miles, under one charter, now known as the Reading Railroad.

Every Pennsylvanian is familiar with the great embarrasments to the business of the country, checking commercial enterprise, disastrous to every branch of industry, and fatal to public and private credit, during the period from 1838 to 1842. Notwithstanding all these difficulties, the friends of this road pushed steadily on with its construction, taxing their energies, their means, and their credit, to the utmost, to insure its speedy completion; and, on the first day of 1842, the first locomotive and train passed over the whole line, between Pottsville and Philadelphia.

From that date to the present, its business, its revenue, and its credit have increased in a degree scarcely paralleled by any similar improvement, until its tonnage and its receipts are measured, as at present, by millions.

Two continuous tracks of railway extend the whole distance of 93 miles, from Mount Carbon, near Pottsville, to the Delaware river, 3 miles above the heart of the city of Philadelphia; with a branch also laid with a double track 1¼ miles long, connecting by the State road with the principal business street of the same city, for the passengers, merchandise, and city coal business. The rail used is of the H pattern, with both top edges alike, and weighs 45½, 52½, and 60 lbs. to the yard; the lightest having been first, and the heaviest last, used. A few tons of other rails, purchased before a further supply of the pattern adopted for the road could be obtained in England, and varying from 51 to 57 lbs. per yard, are also in use.

The track is laid in the most simple manner, the lower web or base of the rail being notched into 7 by 8 white oak cross-sills, and these laid on broken stone 14 inches deep, and well rammed. This method is found admirably calculated for the enormous tonnage of the road, being rapidly and economically repaired and replaced, securing a thorough drainage, and preserving its line and level true at all seasons of the year.

The grades of this road are the chief elements of its success in revolutionizing public opinion on the subject of the carriage of heavy burdens by railway. From the most important branch coal-feeder of the road, at Schuylkill Haven, to the Falls of Schuylkill, a distance of 84 mtles, the grades all descend in the direction of the loaded trains, or are level; with no more abrupt descent than 19 feet per mile. At the Falls, an assistant locomotive engine, of great power, pushes the train, without the latter stopping, or any delay, up a grade of 42½ feet per mile, for 1 4-10 miles, leaving it on a descending grade, within four miles of Richmond, whither it is readily conveyed by the same engine which started from Pottsville, never leaving her train.

The bridges on this line are of great variety in plan and material of construction, stone, iron, and wood. The most perfect and beautiful structure on the road, if not in the State, is a stone bridge over the Schuylkill, near Phœnixville, built of cut stone throughout, with 4 circular arches, of 72 feet span, and 16½ feet rise each, at a cost, with ice-

breakers, of $47,000. There are 75 other stone bridges and culverts, varying from 6 to 50 feet span, all of circular arcs, spanning water-courses, branches of the Schuylkill, and roads. There are seven bridges from 25 to 38 feet span each, built of iron, trussed after the "Howe" plan, with wrought-iron top and bottom chords, wrought-iron vertical tiles, and cast-iron diagonal braces. These bridges are stiff and light, and present a very neat and handsome appearance. As, however, the flooring is of wood, and therefore liable to decay and accident, they have only been used where the width and depth rendered stone bridges impracticable, the latter being always used in replacing wooden structures, wherever it was practicable. There are 22 long wooden bridges, varying from 41 to 160 feet span, built on various principles, chiefly of lattice-work, assisted by heavy arch pieces. Of this latter description, the bridge over the Schuylkill at the Falls, is a fine specimen. It is 636 feet long, consisting of four spans of 134, two of 152, and one of 160 feet, respectively, with its deck 46 feet above the river. There is one bridge built on "Burr's" plan, with double arch pieces of 149 feet span, and one on "Howe's" plan, 156 feet span, also assisted by arch pieces. Besides the above, there are 28 wooden bridges of short spans, from 14 to 39 feet, built of King post, Queen post, "Howe's truss" and joists.

There are four tunnels on the road. The longest of these is near Phœnixville, 1,934 feet long, cut through solid rock, worked from five shafts and two end breasts; deepest shaft 140 feet; size of tunnel, 19 feet wide by 17½ high; total cost, $153,000. Another tunnel at Port Clinton is 1,600 feet long, worked from the two ends only; material loose, and solid rock mixed; 1,300 feet are arched; depth below the surface of ground, 119 feet; total cost, $138,000. The Manayunk tunnel is 960 feet long, through very hard solid rock, worked from two ends; depth below surface, 95 feet; total cost, $91,000. Another tunnel, under the grade of the Norristown railroad, and through an embankment of the latter is 172 feet long, formed of a brick arch, with cut stone facades.

The depots on this road are all substantially built, with a view to use rather than ornament. At Schuylkill Haven, 3 miles from Pottsville, is erected a spacious engine-house, round, with a semi circular dome roof 120 feet diameter, and 96 feet high, with a 40 feet turning platform in the center, and tracks radiating therefrom, capable of housing 16 second class engines and tenders. At Reading are located the most complete, extensive, and efficient workshops, and railroad buildings of every description to be found in the country. The company's property covers here, besides the railroad tracks, 36 acres, the greater part of which is already in use, for the various operations required to keep this vast machine in life and motion. The main machine-shop is 159 by 70 feet, filled with the most valuable tools and machinery, all made, with the exception of three or four lathes, in the company's workshops, by their own mechanics. Other machine shops, one 87 by 40 feet, are used for fitting iron and brass exclusively.

The iron foundry is 164 by 35 feet, with two cupolas. The largest blacksmith's shop is 121 by 31 feet; 57 smiths' fires being daily in use on the works, all blown by fans, driven by steam. The main carpenters' shop is 14 by 46 feet, with a pattern shop in the second story. The iron coal cars, tenders, and smoke-pipes, are made and repaired in a shop 123 by 83 feet.

A merchandise depot just completed, is 124 by 84 feet, to accommodate that rapidly increasing branch of business. About a mile below the Reading depot, where the railroad is near the river, most efficient water-works have been lately constructed, consisting of a reservoir on the Neversink hill side, 51 feet above the rails, holding 700,000 gallons of water, supplied with a force pump worked by a small steam-engine. Attached to this station are also two separate tracks with coal-shutes beneath, 300 and 450 feet long each, for the use of the town; two wood and water stations, a small portable steam-engine for sawing wood, a refreshment house for crews of engines stopping to wood or water; a brass foundry, passenger car house, passenger rooms, offices, &c., &c. All the machinery of the main shops and foundry is driven by a very handsomely finished stationary engine, with double cranks, of 35 horse-power, built entirely on the works.

At Pottstown station, 18 miles below Reading, extensive and efficient shops have also been erected, chiefly for work connected with the bridges and track of the road, and new work of various descriptions. The principal shops here are 151 by 81, 101 by 41, and 81 by 44 feet. The first shop is covered with a neat and light roof, built of an arched "Howe truss," forming a segment of a circle, 78½ feet span, by 16 feet rise.

At Richmond, the lower terminus of the road, at tide water on the river Delaware, are constructed the most extensive and commodious wharves, in all probability, in the world, for the reception and shipping, not only of the present, but of the future vast coal tonnage of the railway; 49 acres are occupied with the company's wharves and

works, extending along 2,272 feet of river front, and accessible to vessels of 600 or 700 tons. The shipping arrangements consist of 17 wharves or piers, extending from 342 to 1,132 feet into the river, all built in the most substantial manner, and furnished with shutes at convenient distances, by which the coal flows into the vessel lying alongside, directly from the opened bottom of the coal car in which it left the mouth of the mine. As some coal is piled or stacked in winter, or at times when its shipment is not required, the elevation of the tracks by trestlings, above the solid surface or flooring of the piers, affords sufficient room for stowing 195,000 tons of coal. Capacious docks extend in-shore, between each pair of wharves, thus making the whole river front available for shipping purposes; 97 vessels can be loaded at the same moment, and few places present busier or more interesting scenes than the wharves of the Reading Railroad at Richmond. A brig of 155 tons has been loaded with that number of tons of coal, in 130 minutes, at these wharves.

A very convenient and neat engine-house has lately been erected at the station; it is of a semi-circular shape, with a 40 feet turning platform in the center, outside, from which tracks radiate into the house, giving a capacity for 20 engines and their tenders of the largest class, the building 302 feet long on the center line, by 69 feet wide. It is built in the simple Gothic style, the front supported by cast-iron clustered pillars, from the tops of which spring pointed arches, and the whole capped with turretted capping. Immediately adjoining are built spacious machine and workshops, for repairs of engines and cars, all under one roof, 221 by 63 feet. A visit to this chief outlet of the Pennsylvania coal trade, will give the best idea of its magnitude, and of the various branches of industry connected with it.

The business of this road requires a large amount of running machinery. The latter consists of 71 locomotive engines and tenders, including five in constant use on the lateral railroads in the coal region; 3,020 iron, and 1,539 wooden coal cars; 482 cars for merchandise and use of road, and 17 passenger cars.

The engines vary from 8 to 22½ tons weight; two very powerful engines, of 27 tons weight each, are used exclusively on the Falls grade before mentioned. The iron cars weigh 2 4-10 tons, empty, and carry five tons of coal. The average load of each engine, during the busy months of the year, is about 410 tons of coal, (of 2,240 lbs) The cost of hauling coal on this road is about 35 cents per ton. Freight or merchandise 75 cents per ton, and passengers, 41 cents each, through. Its grades have chiefly secured this great economy in transportation.

The total length of lateral railroads connecting with the Reading Railroad, under other charters and corporations, but all contributing to its business, using its cars, and returning them loaded with coal and merchandise, is about 95 miles. Some of these railroads are constructed in the moft substantial manner, with the best superstructure at present used in the country.

By the monthly reports which have been made of the business of the company, it appears that the receips from Dec. 1, 1845, to October 31, 1846, have been $1,707,312 25. The receipts for the remaining month of the fiscal year, which ended Nov. 30th, 1846, will be sufficient to swell the gross receipts to about $1,900,000.

In the last annual report, the managers estimated that the gross recepts would be, for the same period, $1,725,000. From this statement it appears, that unless the expenses vastly exceed the estimate given in the same report, the result of the year's business will prove very gratifying to the stockholders.

## RAILROAD IRON IN THE UNITED STATES.

TO THE EDITOR OF THE MERCHANTS' MAGAZINE.

In your number for January, is a statement of the quantity of railroad iron now made in the United States, taken from the Pottsville Miners' Journal, in which it is stated the the first railroad iron made in this country was in 1844, but does not mention by whom. As this is a very prominent article in our manufactures, it is desirable the date of its commencement should be accurately known. I believe the first made here was by the "*Great Western Iron Company*," on the Alleghany river, about 40 miles above Pittsburgh, of which company Mr. Knowles Taylor, of New York, was the president and principal projector. In January, 1842, this company held 200 tons railroad iron ready for delivery at Cincinnati, for a railroad in Indiana, at $50 per ton, at which price they lost money. This company is now called the *Brady's Bend Iron Works*, and is entitled to the credit of making the first railroad iron in the United States. The Miner's Journal, in the list of the several iron companies, puts down the Fall River Company "*in Connecticut.*" It is near Taunton, Massachusetts.

# COMMERCIAL REGULATIONS.

## HARBOR REGULATIONS OF PORT OF MACAO, CHINA.

ALTERED FROM THE DECREE OF MARCH 31st, 1846.

We give, below, the new harbor regulations for the port of Macao, China, which went into operation on the 7th of May, 1846. They will be found important to masters of vessels, and others interested.

The governor, "for the convenience of trade, and to diminish the responsibility of the harbor-master," has resolved to alter the regulations, enacted previously by the decree of 31st of March, 1846, and to order the following, which shall take effect from this date, (7th May, 1846:)—

1. The office of the harbor-master shall be near the custom-house.

2. Every vessel wanting a pilot on entering the roads, shall have her national flag at the foremast-head.

3. The harbor-master alone, shall have power to employ in his service pilots who have passed an examination.

§ 1. In the department of the harbor-master, no cognizance shall be taken of losses in any ship under charge of a pilot who has not been examined and sent on board by the harbor-master, whether in entering or departing.

§ 2. The pay of pilots who have been examined, shall continue the same as those now established.

4. The captain, or master of the ship, shall deliver to the person authorized to keep a register of them, a list of the names of all the passengers, declaring their employment and destination; also, all the papers he brings, mentioning the number.

5. The captain, immediately on landing, shall produce to the harbor-master his register, and a list of the crew of the vessel. These documents shall be kept at the harbor-master's office till his departure.

6. The harbor-master shall send immediately to the chief of the custom-house, a statement of the number of tons of the ship or ships entering the river or Typa, extracted from the proper document, and authenticated by it.

7. Ships cannot enter or leave the harbor, in the northeast monsoon, drawing more than fifteen feet of water, and in the southwest, requiring more than sixteen feet, and that only in spring tides. On other occasions there are only thirteen feet.

8. Vessels are not allowed to enter the harbor with gunpowder on board. It must be deposited on entering, at the Bar-fort, and received again on the vessel's departure.

9. It is prohibited to throw ashes or ballast into the sea, within the ports.

10. Vessels cannot change their anchorage within the river, without the consent of the harbor-master.

11. Vessels are obliged to have their sheet-anchor always ready to drop.

12. If any of the crew desert the ship, it must be made known to the harbor-master, who shall take measures for his apprehension. If he is not found before the vessel sails, he may be apprehended as soon as he appears, if that is desired, in order to be delivered up to the competent authority.

13. It is prohibited to leave sick persons in Macao, and these can be landed only by permission of the harbor-master.

14. No captain shall have the power to turn away all, or a part of the crew of his vessel, without consent of the harbor-master.

15. It belongs to the harbor-master to make a registration of the crew.

16. Masters or captains of vessels who intend to depart, shall produce some time before to the harbor-master, all their papers and clearances which ought to be given them by the custom-house, declaring if he has gunpowder in deposit; and if these papers are regular, the harbor-master shall give the last clearance.

Contravention of these articles shall be subject to the award of the law.

The authorities to whom the cognizance of these things belongs have thus understood and decreed. (Signed)

JOAO MARIA FERREIRA DO AMARAL.

*Macao*, 1st May, 1846.

## SHIPMENT OF COTTON.—REGULATIONS.

The following notice has been promulgated by the Liverpool Chamber of Commerce

AMERICAN CHAMBER OF COMMERCE, LIVERPOOL, 3d *December*, 1846.

GENTLEMEN:—I beg to acquaint you, for the information of the mercantile community of New York, that, in pursuance of a recent order of the Lords of the Treasury, from and after the 12th December, the landing waiters will not weigh cotton, or other free goods imported into this port, except a few packages to ascertain the average weights.

Shippers of cotton will observe, that in consequence of this change, it will be necessary that the weights should be accurately taken at the port of shipment, so as to avoid delays and differences in the adjustment of freight on landing.

I am, your very obedient servant,

G. J. DUNCAN,

*Secretary of the American Chamber of Commerce, Liverpool.*

In connection with this notice, the New York ship-owners have agreed as follows:—

NEW YORK, *December* 28, 1846.

The undersigned, owners or agents of vessels engaging in freight from this port to Liverpool or London, agree that, on and after this date, all freights to either port, engaged by either of them, shall be on condition that the freight shall be paid immediately on the landing of the goods, and the same shall be particularly noted on the bills of lading, before signing, to wit: "Freight to be paid immediately on the landing of the goods, without any allowance of credit or discount to the consignee." They also further agree, that freight on cotton shall be charged on the invoice weight, which must be furnished by the shippers before the bills of lading are signed, and the amount of freight to be paid specified on the bill of lading.

GRINNELL, MINTURN & Co.
ROBERT KERMIT.
EDWARD K. COLLINS & Co.
WOODHULL & MINTURN.
CHARLES H. MARSHALL.
TAYLOR & MERRILL.
SPRAGUE, ROBINSON & Co.
SLATE, GARDINER & HOWELL.
JOHN GRISWOLD.
NESMITH & WALSH.
COOK & SMITH.
DUNHAM & DIMON.
JOHN OGDEN.
THOMAS S. WINSLOW.
D. & A KINGSLAND & Co.
DAVID OGDEN.
E. T. HURLBUT & Co.

The following is the law passed by the South Carolina Legislature in relation to the tare on cotton:—

"*Be it enacted by the Senate and House of Representatives, now met and sitting in General Assembly*, That the custom of making a reduction from the actual weight of bales of unmanufactured cotton, as an allowance for tare or draft thereon, be and the same is hereby abolished; and that, hereafter, all contracts made in relation to such cotton shall be deemed and taken as referring to the true and actual weight thereof, without deduction for any such tare or draft."

## NAVIGATION OF STEAM VESSELS.

The "rule" for the guidance of persons in charge of vessels navigated by steam was abrogated on the 1st January, 1847, by an act of the British Parliament. The following section is the new law:—

"That every steam-vessel when meeting or passing any other steam-vessel shall pass as far as may be safe on the port side of such vessel, and every steam-vessel navigating any river or narrow channel, shall keep as far as it is practicable to that side of the fairway or mid-channel of such river or channel which lies on the starboard side of such vessel, due regard being had to the tide and to the position of each vessel in such tide; and the master or other person having charge of any such steam-vessel, and neglecting to observe these regulations, or either of them, shall for each and every instance of neglect forfeit and pay a sum not exceeding £50. Lights are to be hoisted, in conformity with regulations to be made by the Admiralty, from sunset to sunrise, whether under way or at anchor, and also on the coast within twenty miles of the coast of Great Britain and Ireland, except in the river Thames above Yantlet Creek."

# NAUTICAL INTELLIGENCE.

## NAUTICAL INVENTION FOR STEERING SHIPS.

We cheerfully publish the subjoined notice of "Boston," relating to Mr. Brown's invention, as an act of justice, omitting the illustrations:—

Boston, January 19, 1847.

Freeman Hunt, Esq.

Dear Sir:—In the January No. of the Merchants' Magazine, a very valuable publication, I noticed on the 90th page, a notice as follows:—"Nautical Invention for Steering Ships," taken by you from the Philadelphia North American, but which, you state, is an improvement, and of great importance to navigators. On looking over that article, I find that this improvement, claimed as the invention of R. C. Holmes, agent for the underwriters, &c., and in said article pronounced by the first seamen as the greatest improvement ever accomplished, consists of two barrels or drums. It is then said, "the invention is a new feature in mechanics, nothing like it having been discovered in the books of the patent office."

I have now before me a circular, issued some years since, of an invention very similar, if not exactly the same, which was invented, and I think, patented, some time prior to 1826; at any rate, it was used on board a Boston vessel about that time. This invention was made by John Mills Brown, who was formerly connected with the Federal-street Theatre, and now resides at Cold Spring, Putnam county, New York. My only object in addressing you is, that the credit of the invention, if any, may be attributed to the right source, and to caution those who intend paying for the new improvement, so called. Annexed, you will find a sketch of Brown's plan. Yours, &c., Boston.

"My invention consists of two cylinders, A and B, formed out of one solid piece. The tiller-rope is wound round the small barrel A, then rove through a sheave and on to the large cylinder B; so that if you turn the wheel so as to wind up the rope on the large barrel, it will, at the same time, be let off of the smaller barrel, and the tiller be moved a distance which is equal to half the difference of their respective circumferences; and as the two ends of the tiller-rope operate on the opposite sides of the wheel, there is no strain or shock upon the helmsman. It is quicker than any other wheel, and can he applied in various ways."

## HARBOR OF GLUCKSTADT.

At the extremity of the North Harbor Dam a lantern of 23 feet above high water will be kept burning every night from the 1st December, 1846, which in every direction may be seen at the distance of one league from the harbor, throwing a reddish glare from southwest over west as far the North Elbe shore. Before the head of the North Harbor Dam there is a shallow place, at which, at ordinary flood tide, there are twelve to thirteen feet of water; up to the time that this shallow place will be filled up, there is placed on the outermost westerly point a green buoy, with handle and and broom. At the south side of the same is the entrance to the harbor, which, at high water, has the depth of seventeen to eighteen feet. In the harbor is stationed a steamer to tow ships to and from Gluckstadt, and those who require the assistance of the same have only to hoist their national flag on the mainmast, as soon as the same may be expected to be visible from the harbor.

## REVOLVING LIGHT ON CAPE ST. VINCENT.

Notice has been given that a light was in preparation for Cape St. Vincent, and the Portuguese government has now announced that a revolving light was established there on the 29th of October, 1846. Each revolution of this light is performed in two minutes, in the course of which period a brilliant light appears for a short time, and is then succeeded by darkness. The lighthouse stands on the western part of the cape, in lat. 37 2 9 north, and in lon. 9 0 0 west of Greenwich; and the light being 221 feet above the level of sea, may be seen at the distance of about 19 miles.

# MERCANTILE MISCELLANIES.

## PHILADELPHIA MERCANTILE LIBRARY ASSOCIATION.

The twenty-fourth annual meeting of this institution took place at their hall, on the evening of the 12th January, 1847, John B. Myers, Esq., in the chair, and A. T. Chew, Secretary. The report of the president and directors is a comprehensive, business-like paper. The past year of the association has been one of general prosperity.

The regular augmentation of the members of the society, the increased attendance at its rooms, and its manifest capacity for enlarged usefulness, are causes of congratulatiod to all who feel an interest in its welfare.

The directors have on so many occasions urged the claims of the institution to support, and dwelt so earnestly on the benefits which it offers to all who are disposed to share its advantages, that lengthened appeals in relation to these topics, are deemed unnecessary.

The shelves of the library are capable of containing fifty thousand volumes; and it should be a laudable ambition, with all who may be connected with the institution, gradually to fill them with such works as shall be of permanent value. When every department of literature and science shall there be appropriately represented, then, indeed, will exist a proud monument to the mercantile character of Philadelphia.

The number of volumes taken out for perusal during the past year has been 19,911, being an excess of 5,115 over the preceding year. The newspaper room has been supplied with the usual number of papers, and most of the valuable periodicals may be found on the tables. It is recommended to the next board, to increase these so far as may seem judicious, this description of reading being particularly attractive to the visitors.

The resolution which was adopted at the last annual meeting of the stockholders, in relation to the proposition to open the room every afternoon at 3 o'clock, was carried into effect by the directors, and seems to have given universal satisfaction. The attendance, in consequence, of woman, whose countenance gives lustre to every enterprise, has imparted a new feature of refinement and interest to the association.

It further appears from the report, that the public voice has responded to the calls of the institution with a liberality surpassing the hopes of the most sanguine friends; and its history will, hereafter, be one of quiet triumph, and its condition, in all human probability, one of unmingled prosperity. It was rightly assumed, that an institution which held out sources of innocent enjoyment to the young, and which, by expanding the intellect, necessarily improved the qualities of the heart, would not be permitted to languish in this commnnity.

The connection which is traced between intellectual culture and mercantile ability, between moral excellence and business success—must be exemplified and augmented by the influence of this and similar associations, in the United States; while the course of life in the young, which strengthens morals and guards integrity, will, it is thought, find its best illustration in those fostered under its care. The directors have added considerably to the valuable works of the library, during the past twelve months; the number of volumes purchased being 641. They have endeavored so to arrange the resources of the company, that a considerable addition may be made to the catalogue during the next year.

It has become necessary, in consequence of the large addition of works to the library, since the last catalogue was published, to have a new catalogue prepared with the least possible delay. The last was seriously defective in classification and arrangement, and has been proved entirely inadequate to the purpose for which it wa intended. James Cox, the Librarian, who has served the institution with so much

fidelity during the last seventeen years, has presented an ingenious form for a catalogue, which seems to obviate former defects, and the directors recommend its being adopted for the contemplated new one.

The sinking fund, which it is contemplated to set apart for the purpose of liquidating the ground rent, will, it is believed, be sufficiently large to effect that object in the course of a few years. When this is accomplished, the company will be in unencumbered possession of their valuable property, and derive therefrom a very considerable income.

The directors have caused to be engraved, by William E. Tucker, a representation of the library building, which is justly admired for its accuracy and exquisite finish. It is intended for a vignette to new certificates of stock, now in course of preparation, which, when completed, the stockholders can obtain in lieu of their old ones, by leaving the latter with the treasurer or librarian.

The report is signed by Thomas P. Cope, Esq., who has for several years filled the office of president, with the entire approbation of the society. We subjoin a list of the officers elected for the present year:—

Thomas P. Cope, President; Isaac Barton, Charles S. Wood, Joseph Patterson, Robert F. Walsh, J. J. Thompson, J. L. Erringer, William L. Schaffer, W. E. Bowen, Marmaduke Moore, Philip S. Justice, W. L. Rehn, William Ashbridge, Directors; John Fausset, Treasurer.

## ROUSSEL'S MINERAL AND PERFUMERY MANUFACTORY.

We recently visited, in Philadelphia, the perfumery manufactory of Eugene Roussel which is the most popular one of the kind in the United States. Indeed, we believe, that no other manufactures the same variety of articles, or to the same extent. M. Roussel is a Frenchman, and came to this country in 1838, when he commenced the manufacture of perfumery in every variety; and from a very small beginning, he has risen to be one of the most extensive manufacturers in the world. The large experience which M. Roussel enjoyed in Paris, as foreman of the extensive house of Laguirer, Pere et Fils, so generally known for more than half a century throughout Europe, and who were honored with a silver medal from the French government at one of the great triennial exhibitions of the products of national industry in France, eminently qualifies him to conduct, profitably and honorably, the business in which he is engaged. The capital invested in Roussel's establishment, exceeds $50,000, and the number of hands employed is over 100. The shaving cream manufactured at this establishment is of a superior quality, and exceeds *ten* thousand pounds per annum; which, at the moderate calculation of 25 times for each box would shave 4,000,000. Roussel manufactures over 50,000 lbs. of toilet soap of all kinds, and 2,500 galls. of Cologne water, besides a large quantity of hair oils, pomatums, extracts for the handkerchief, hair dyes, &c. The amount of his annual sales of perfumery and soap exceeds $60,000.

M. Roussel was the first to introduce mineral water into the United States, in bottles, which he commenced in [illegible]39. The sales of this water did not then average more than ten or fifteen dozen [illegible]er day, and at this time he puts up and sells from thirteen to fourteen hundr[illegible]ozen daily. Not less than 100 establishments for the manufacture, have grown up since M. Roussel introduced its manufacture into the United States. The value of the corks consumed, alone, amounts to $10,000; sugar, $12,000; cost of bottles per annum, $6,000; number of bottles manufactured per annum, 4,500,000. The total value of mineral waters sold, amounts to $60,000. The amount of wages paid persons in the manufacture of the several articles, is about $20,000. M. Roussel has received several gold and silver medals from the different industrial institutions of our country, and we have no doubt but that the articles from his establishment are equal in every respect to those made in Paris.

## ST. LOUIS, THE FUR TRADERS' POST.

Thomas Allen, Esq., of St. Louis, recently delivered a lecture before the Mercantile Library Association of St. Louis, on the fur trade, and kindred subjects. A portion of it has been published in the papers of that city, but that part which details the history of the fur trade has been omitted, as it is stated that the lecturer is engaged in a more elaborate work on the trade.

We see St. Louis, the fur traders' post, has become St. Louis, the empress city of the West; that the steamboat has taken the place of the Mackinaw boat, that the iron horse of the railroad is supplanting the pack-mule and the wagon-train, and that a messenger of news, in place of the Indian runner has come into service, which has annihilated all space, and brought the whole family of the United States to feel as one body, throughout which thought is communicated with the quickness of sensation in the nervous system. We shall not regret that agriculture has taken under its care the former hunting-grounds of the savage, nor that manufactures are occupying the old dams of the beaver. Commerce, the civilizer, of which the fur trader was the forerunner, is working all these beneficent changes. She is doing more. She is increasing the population, opening new sources of industry, enlarging, cheapening, and equalizing the means and variety of enjoyment. The beaver, model of industry as she is, is not more active in supplying the necessities of her young, than commerce in supplying the wants of man. Without commerce, we should have had no broad cloth nor domestic, no loom nor cotton gin, no steam-engine, nor gunpowder, nor paper making, nor printing, nor tea, nor coffee, nor spices—we should have had no Homer, nor Shakespeare, nor Milton, nor Scott—and ages would have passed without experience, and lives without knowledge.

St. Louis, from her position and destiny, require the full stature of mercantile character. She is advancing to a throne of empire, second to one only in this great valley, which is to be with her future millions of inhabitants the garden and granary of the world. The merchant is to play a very important part in working out and shaping this glorious destiny The moral influence, the popular renown which each individual will possess in the great procession of coming events, will depend, not wholly on his industry or his fortune, but more on the enlightened energy of his mind and the probity of his character.

In the foundation of a library, we recognize the true spirit of mercantile liberality. Properly conducted and sustained, it will prove to the merchant a BANK, whose capital can never fail, and whose issues will not depreciate—a BANK upon which he can make drafts, without limit, for geography, for history, for information in respect to the commercial systems and police of nations, the nature and extent of their commerce, their sources of industry, their tastes, their wants, and their supplies. How delightful would it be to see the young merchants of St. Louis making a run upon such a bank! What a hope-inspiring spectacle to behold them animated with a desire to exhaust the institution of its treasures!

*Au contraire*, let me add: when we see a city of merchants, devoured by the avarice of gain, taking no relief but in passing sensual pleasures, we can have no expectation of seeing them rise above the condition of *mere shopkeepers*. But when we observe a city of shopkeepers habitually seeking the temples of knowledge, we shall confidently look among them to find the Spragues, the Rogers, the Hallecks, the Charles Lambs, the Lawrences, the Roscoes, the Hancocks of their day.

## HINTS TO MERCHANTS AND BUSINESS MEN.

Keep your accounts straight. Many a man has lost a fortune by carelessness. The little time and trouble it takes day by day, to keep debt and credit, and file away bills that have been paid, is nothing to be compared with the future benefits. No man is perfect, and the most honest may forget that you have adjusted your account, and present his bill again. If you feel sure you have cancelled the debt, you may not convince your creditor of the fact. But if you have preserved his bill receipted, there can be no mistake or further trouble about it.

## AMERICAN IRON-WOOD.

We learn that the revenue authorities of England have permitted iron-wood, a species of cedar or mahogany, the produce of this country, to be admitted duty free, being of opinion that the wood in question comes under the description of furniture wood, and is admissible to entry free of duty under the order of the lords of the treasury of 22d ult.

# THE BOOK TRADE.

1.—*A Treatise on the Law of Principal and Agent,* chiefly with reference to Mercantile Transactions. By WILLIAM PALEY, of Lincolns Inn, Esq., Barrister at Law. The third edition, with considerable additions by J. H. LLOYD, of the Inner Temple, Barrister at Law. Third American edition, with further extensive additions, by JOHN A. DUNLAP, Counsellor at Law. New York: Banks, Gould & Co., Law Booksellers.

It is well remarked, by the learned editor of an English edition of this standard Treatise on the Law of Principal and Agent, that the vast extension of modern commerce, both foreign and domestic, and the novelty and variety of the channels through which it is carried on, and perhaps also, a different system of transacting mercantile business, have given rise to new situations and questions upon the subject of commercial agency, which have come under legal investigation. The volume before us, a handsome octavo of nearly five hundred pages, is unquestionably the most complete and thorough edition of the work that has ever been produced; and the numerous additions made by the American editor, are of a character materially to enhance its value. It would, with the endorsement of our leading jurists, be almost, on our part, a work of supererogation to enlarge upon its value to professional men, as well as to the merchant, who desires to understand the leading features of the subject.

2.—*A Treatise on the Criminal Law of the United States;* comprising a Digest of the Penal Statutes of the General Government, and of Massachusetts, New York, Pennsylvania, and Virginia; with the decisions on cases arising upon those statutes, together with the English and American authorities upon Crime and Law in General. By FRANCIS WHARTON, 1846.

Such a work as this has long been a desideratum with the profession. The works of Barbour and the Davis's—the only American treatises, strange to say, attempted upon the same subject—amount to simple examinations into the duties of justices of the peace, and such as are beneficial only to those who stand in need of the most elementary expositions of criminal law. The book of Mr. D. Davis, it is true, also goes to enlighten citizens as to their office when called upon to act as grand jurors; but this scarcely enlarges its sphere of usefulness. Practitioners at the bar have been hitherto obliged, for their part, to rely upon the labors of Chitty, Russell, Archbold, and Roscoe, who give us the old crown law, with the British judicial decisions added to it—a code which every day causes to differ more and more from our own, which is the offspring of freer institutions and a larger personal liberty. The ordinary expedidient of compensating for the defects of these writers by a supply of domestic foot notes and references, has become altogether insufficient; since the decisions of our courts have so increased in number as to often be of really more importance than the English text upon which they profess to comment. It is on this account that the work now before us has been so sincerely welcomed. Its author is Mr. Wharton, a gentleman whom Pennsylvanians have been complimenting for his able performance of the duties of prosecuting attorney of the commonwealth, for Philadelphia. It is what it professes to be—the criminal law of the *United States* digested, as well as compiled, and possessing every requisite that could be desired in it. An able legal writer has remarked upon the concluding book, On Trial, and its Incidents, that the reader will find in it "the subject, not only masterly treated, but an amount of information embodied, divided, and digested, in a manner altogether unattempted in any previous work on law, English or American." This may be said truly of all the six books of which it is composed It is, throughout, executed in a painstaking and industrious, yet finished and scholarlike manner.

3.—*Small Talk on Great Subjects.* Nos. 7, 8, 9. Philadelphia: Lea & Blanchard.

The numbers before us of these comprehensive essays on popular subjects, complete the series. No. 8 is devoted to an exposition of vulgar and common errors, adapted to the year of MDCCCXLV; No. 7, to Christian doctrine and practice in the second century; and No. 9 is an introduction to vegetable physiology, with reference to the works of De Candolle, Lindley, etc. The circulation of these works in England, has been commensurate with the marked ability displayed in their production, and if it is not so in this country, we shall be the losers.

4.—*Instructions to Young Sportsmen, in all that relates to Guns and Shooting* By Lieut.-Col. P. HAWKES. First American, from the ninth London edition. To which is added, the Hunting and Shooting of North America, with descriptions of the animals and birds. Carefully collated from authentic sources. By WILLIAM J. PORTER, Esq., editor of the New York Spirit of the Times. Philadelphia: Lea & Blanchard.

This is a very thorough and complete manual for the sporteman, embodying the whole range of subjects connected with guns and shooting in England; and the American editor, whose taste and studies eminently fit him for the task, has omitted only what is of a local character, and supplied the place with whatever of utility or interest pertains to sports in the United States. It is, on the whole, one of the most complete and thorough treatises bearing on the subject, that has ever fallen within our observation.

5.—*The Dog.* By WILLIAM YOUATT. Edited with additions by E. J. LEWIS, M. D., Member of the Academy of Natural Sciences, Philadelphia; of the Philadelphia Medical Society; of the Prussian Medical Socety, etc. Philadelphia: Lea & Blanchard.

Mr. Youatt's success as an author in this particular department of literature, has been owing, in a great measure, to his enthusiastic devotion to the study of natural history. In the present volume, devoted to the dog, we find embodied, not only the early history, classification, varieties, and qualities of the dog, but whatever is calculated to promote his training for the various uses of domestic pursuits. The diseases which affect the dog, and the mode of treatment, are fully discussed; and we have, moreover, a fund of anecdotes, illustrative of his faithful characteristics, which will interest the admirers of this noble animal. Dr. Lewis, without abridging, as we are informed, the English edition, has added to the volume some sixty additional pages, thus adapting it to the wants of our own country, where the varieties of the animal are more numerous than they are in England.

6.—*American Natural History.* By JOHN D. GODMAN, M. D. To which is added his last work, "Rambles of a Naturalist," with a biographical sketch of the author. In two volumes. Philadelphia: Uriah Hunt & Son.

This work, the production of Dr. Godman, who was born in Maryland in the year 1794, has passed through numerous editions, and acquired the character of a standard in the department of literature which it covers. It comprehends a classified account of the animals of all North America, their genus, and whatever tends to illustrate their character and habits. Its standard value, and the high reputation the author enjoyed, will secure for the present edition, which is published in a handsome and substantial style, a steady, if not extensive sale. It abounds in illustrative anecdotes of animals.

7.—*State Book of Pennsylvania;* containing an account of the Geography, History, Government, Resources, and Noted Citizens of the State, with a map of the State and of each county. By THOMAS H. BURROUGHS. Philadelphia: Uriah Hunt & Son.

The title very sufficiently expresses the leading features of this interesting manual, which appears to have been prepared with great care, and its arrangement is the most convenient for study or reference of any work of its kind that has of late fallen under our notice. It has a separate map of each county in the State, with appropriate and well executed illustrations. The author was some time Secretary of State in Pennsylvania, and had access to various means of information not familiar to many compilers, and has given us a clear and comprehensive account of the "Key-stone State" and its resources.

8.—*The Pleasures of Taste, and other Stories;* selected from the writings of Miss Jane Taylor, with a sketch of her life. By Mrs. SARAH J. HALE, author of "Traits of American Life," "Ladies' Wreath," etc. New York: Harper & Brothers.

This excellent volume was prepared originally for the "Massachusetts School Library," a fact that would commend it to all who are acquainted with the high standing of the committee who controlled the introduction of every work introduced into the series, were not he reputation of Mrs. Hale so well known and highly appreciated for sound judgment, purity of taste and character, not only as an authoress, but as a woman, in all her varied relations. The selections are excellent, and the biography of Jane Taylor, by Mrs. Hale, though brief, is comprehensive and to the point.

9.—*The Public and Private History of the Popes of Rome*, from the Earliest Period to the Present Time; including the history of Saints, Martyrs, Fathers of the Church, Religious Orders, Cardinals, Inquisitions, Schisms, and the Great Reformers. By Louis Marie de Cormenin. Translated from the French. Two volumes. Philadelphia: James M. Campbell.

This is a very remarkable work in many respects. It purports to come from the pen of a French Roman Catholic, and yet, while it records the virtues of many of the popes, it discloses the vices and crimes of others—a large majority of them to a degree, that is calculated, in some portions of the work, to excite disgust in the minds of most readers. The author of the work thus briefly prefaces it, which we shall quote, in order to give some idea of its spirit and design:—

"The history of the popes is an immense work, which embraces within its scope the political, moral, and religious revolutions of the world. It runs through a long series of ages, during which the bishops of Rome, whose mission was to announce to men a divine religion, have forgotten it in their pride of power, have outraged the morality of Christ, and become the scourge of the human race. Formerly, the thunders launched from the Vatican by sacreligious priests, overthrew kingdoms, and covered Europe, Asia, and Africa with butcheries, wars, and conflagrations. But the times are changed; religious passions are softened, philosophy has overthrown absolute thrones, and broken down the colossal power of the popes."

A brief analysis of these epochs precedes the author's history, and offers a frightful picture of monstrous debaucheries, bloody wars, memorable revolutions, etc., which prepares, by its wonderful recital, for the long succession of pontiffs and kings celebrated for their crimes, or illustrious for their exploits. The strong republican feelings of the author, although a Catholic, may have biased his opinion in regard to the character of popedom; but, on the other hand, they led him to watch with a close and critical eye, all movements having a tendency to the concentration of power, either in Church or State, in the hands of a single individual. The translator was evidently qualified for his task, and has doubtless retained the spirit and intent of the author. The two volumes cover more than nine hundred large octavo pages, and the work is splendidly illustrated with colored plates, which will compare well with the original French, of which they are copies. It is, on the whole, a work well calculated to create a deep interest in the public mind, and must obtain a wide circulation.

10.—*History of the Revolt of the Netherlands*, Trial and Execution of Counts Egmont and Horn, and the siege of Antwerp. Translated from the German of Frederick Schiller. By the Rev. A. J. W. Morrison. New York: Harper & Brothers' New Miscellany.

This work of Schiller was first published, we believe, at Weimar, in 1788, in the author's native German. How long it has been translated into our own, we have not the means at hand of knowing. This, however, is the first edition of the translation that has ever been produced in this country. The materials of the author were at the time it was written abundant, and the only difficulty he must have experienced, was to seize the truth from such unequal, partial, and often contradictory narratives, as it is quite natural to suppose existed. But the philosophy and genius of Schiller have lent a charm to the work that cannot fail of interesting a large class of the English admirers of German literature and history. To Schiller's mind, one of the most remarkable events which have rendered the 14th century among the brightest of the world's epochs, was the foundation of the freedom of the Netherlands. We are glad that the Harpers have introduced it into their admirable series—the New Miscellany—of which it forms the XXIst number.

11.—*Pictures of Early Life; or, Sketches of Youth.* By Mrs. Emma. C. Embury. New York: Harper & Brothers.

The design of these tales is to illustrate, in a simple and pleasing manner, some of the more important lessons of early education. The work has already passed through several editions, and those who are familiar with the author's talents in this department of literature, need not be told that she has accomplished successfully, so far as as it can be, her design. At least, it is a most agreeable selection of stories, that will be read with general satisfaction.

12.—*Legends and Stories of Ireland.* By Samuel Lover, Esq., R. H. A. First Series. Philadelphia: Carey & Hart.

A choice collection of the author's inimitable legends and stories, overflowing with genuine Irish wit and humor, and as free from indelicate inuendos and vulgarity as such writings can well be. Those who have read the "Handy Andy" of Lover, cannot abstain from the excitement offered to their risibilities in the present volume.

13.—*Hutton's Book of Nature Laid Open.* Revised and Corrected. By Rev. J. J. Blake, D. D., author of various works on general literature. New York: Harper & Brothers.

The design of this little work, which is very generally known, we suppose, is to lead the young mind to a contemplation of the works of the Creator. Dr. Blake has added a few questions at the foot of each page, which will render it an agreeable and instructive Sunday-school book.

14.—*Evenings at Home;* or, the Juvenile Budget Opened. By Dr. Aikin and Mrs. Barbauld. Revised Edition. New York: Harper & Brothers.

Fifteen London editions, and we know not how many American, would seem to indicate the great popularity of this work. That it is deserved, all who are acquainted with it will readily admit. Purer minds than Dr. Aikin and Mrs. Barbauld possessed, never attempted, that we are aware, to cater for the instruction and amusement of the young: and thousands grown to years of maturity, will bear testimony to the benign influence received through these pleasant and profitable pages. The present edition is beautifully illustrated with engravings after Harvey and Chapman, by that excellent artist, Adams.

15.—*The Book of Nursery Rhymes, Tales, and Fables.* A Gift for all Seasons. Edited by Lawrence Lovechild. Philadelphia: George B. Zieber.

This is a beautiful edition, consisting of most of the old ballads which afforded our grandfathers amusement in the days of their childhood; such for instance, as "Old Mother Hubbard and her Dog," and many others as well known and popular.

16.—*Alladin;* or, the Wonderful Lamp. A Gift for all Seasons. With fifteen exquisite illustrations on wood, engraved by Doughty, Gilbert, Gihon, Waitt, and Downes, from original designs by Darley. Edited by Lawrence Lovechild. Philadelphia: George B. Zieber.

This popular eastern tale, or romance, designed for the amusement of children, is reproduced in an elegant and captivating style, with highly colored illustrative engravings. It has ever been a favorite with "little folks," and the beautiful form of the present volume will enhance its value to them.

17.—*Elegy Written in a Country Churchyard.* By Thomas Gray. With thirty-six illustrations, engraved on wood by S. Gilbert. Philadelphia: John W. Moore.

Gray's Elegy, which has ever been considered a perfect gem in English poetical literature, like Shakspeare and the Bible, is above criticism; and therefore, our only object at this time, is to notice the present as a most beautifully printed, bound, and illustrated edition of it. Each page occupies but one verse of the poem, which has an appropriate illustrated engraving. Indeed, so graphic are the descriptions in every line of the poem, that it would be strange if the ingenious artist did not catch the movement of the poet's mind, which, aside from the thoughts that impressed it at the time, was so perfectly alive to the most artistic conception of composition.

18.—*The Treatment of Insanity.* By John M. Galt, M. D., Superintendent and Physian of the Eastern Lunatic Asylum of Virginia, at Williamsburg. New York: Harper & Brothers.

We have, in this volume of nearly six hundred pages, a very elaborate and able treatise on insanity. Dr. Galt seems to have embodied in his work a vast amount of matter on the subject, gathered not only from his own experience in this particular department of practice, but from the labors of the most eminent and popular writers at home and abroad. It is designed for the profession, but contains much that will interest the intelligent reader.

19.—*American Historical and Literary Curiosities;* consisting of fac-similes of original documents relating to the events of the Revolution, etc., etc. With a variety of relics, antiquities, and modern autographs. Collected and edited by J. JAY SMITH, librarian of the Philadelphia and Logamian libraries, and JOHN F. WATSON, Annalist of Philadelphia and New York, assisted by the Association of American Antiquarians. Philadelphia: Carey & Hart. New York: Wiley & Putnam.

The design of this handsomely executed book, is indicated in the title-page quoted. It embodies numerous autograph letters of General Washington, William Penn, John Adams, Benjamin Franklin, Lafayette, Mrs. Martha Washington, Kosciusko, George Whitfield, etc., besides modern autographs and many printed literary curiosities of the past. The work is to be continued in numbers, and will, when completed, contain much that will interest, not only the antiquarian, but all who are curious in such matters, or delight in recalling the reminiscences of the past. It is well remarked by the editor, that "the past has a charm for Americans, as well as for the inhabitants of countries whose history goes far into the shadowy and unknown; *our* early and romantic past has the merit of being known and truly related; everything which adds to these truths, is sought for with avidity by the curious." It is with such views that the present work has been prepared and published.

20.—*Songs and Ballads,* By SAMUEL LOVER. Including those sang in his "Irish Evenings," and hitherto unpublished. Third edition, with additions and corrections by the author. New York: Wiley & Putnam.

The deserved popularity of the present collection of these "Songs and Ballads" in America, will secure for the present edition an extensive demand. "A reprint," says Mr. Lover in his preface to this edition, "of a London edition of my Songs and Ballads, has lately been published in this country, *deficient* of the songs of 'Handy Andy' and 'Treasure Trove,' and but very few from my 'Irish Evenings.' This present edition contains all those I have enumerated, besides all the songs of my 'Irish Evenings,' many of which are here published for the first time. In fact, the present edition is the only perfect one in existence, being much more ample than any collection of my songs published, even in Europe, and the only authentic copy of my poetical works in this country, it having gone through typographical corrections under my own hand."

21.—*Herdsmen and Tillers of the Ground;* or, Illustrations of Early Civilization. By Mrs. PERCY LINNETT. New York: Wiley & Putnam.

The present volume, with one which preceded it, is intended as a part of a descriptive history of the progress of civilization as far as it can be made interesting to juvenile readers; and a series of sketches of the life of races existing at present in various stages of advancement. The subjects included in this volume, are the Nomadic Herdsmen of Silena, the Pastoral Tribes of the Asiatic Land, the Mountaineers of Caucasus, Kalmucks and Krughts, or Cossacks of Independent Tartary, etc. It is amusing and instructive, and the highly colored engravings, illustrative of the subjects, are spirited and life-like.

22.—*Glimpses of the Wonderful.* New York. Wiley & Putnam.

This is a beautiful annual, designed for children and youth. The wonders of nature and art are contained in a happy and attractive form. Amusement is here rendered subservient to information that is well calculated to enlarge the intellect of the young mind. The several "Wonders" are illustrated with well-executed cuts.

23.—*The Modern Standard Drama;* A collection of the most popular acting plays, with critical remarks; also, the Business of the Stage, Costumes, etc. Edited by EPES SARGENT, author of "Velasco, a Tragedy," etc. Vol. III. New York; William Taylor & Co.

The third volume of this collection of popular plays, just completed, includes—The Poor Gentleman, Hamlet, Charles II., Venice Preserved, Pizarro, The Love Chase, Othello, Lend Me Five Shillings. The volume also contains a brief memoir of Mr. William Burton, and a portrait of that gentleman in Dr. Ollapod, in the comedy of "The Poor Gentleman."

24.—*The Roman Traitor;* a True Tale of the Republic. A Historical Romance. By HENRY WILLIAM HERBERT, author of "Marmaduke Wyvil," "Cromwell," "The Brothers." New York: William Taylor & Co.

This is the first attempt of the author, as we are informed, in classical fiction, and he has chosen the conspiracy of Catiline as a theme particularly adapted for the purpose, and as being, moreover, an actual event of vast importance, in many respects unparalleled. Mr. Herbert, it would seem, to the history of the strange events related in this tale, has scrupulously adhered; and the dates, facts, and character of the individuals introduced, we are assured, will not be found in any material respect erroneous or untrue.

25.—*The Complete Poetical Works of Thomas Campbell;* with a Memoir of his Life, and an Essay on his genius and writings. Illustrated with fine steel engravings. New York: D. Appleton & Co.

It would be a work of supererogation on our part, to speak of the poems or power of Campbell. There are few but what admire his subdued enthusiasm; and it has been, we believe very truly said of him, that he is *par excellence* the poet of the fair sex. There are, perhaps, no works more relished by cultivated females. But our chief object is to notice the present edition, which appears in uniform style with the publisher's standard poets, some ten or dozen volumes of which have already appeared. In some respects it is handsomer—the type is larger, and the illustrations, many of them, better.

26.—*Sailors' Life and Sailors' Yarns.* By Captain RINGBOLT. New York: Charles S. Frances.

A portion of the contents of this volume was originally published in the Boston Journal; written, as the author says, for his own amusement in leisure hours at sea. The "Yarns," as they are termed, we have the assurance, are founded upon fact; and some are strictly true, with the exception of the names of persons. These sketches of a sailor's life, and narratives of incidents at sea, are written in an agreeable vein; and the sentiments which many of them contain cannot fail to commend themselves to sailors, and to those interested in the sailor's welfare. We commend it to all who "go down to the sea in ships, or do business upon the great deep," either in the capacity of seamen or passengers, as alike interesting and instructive.

27.—*Flowers for Children.* By L. MARIA CHILD, author of "Mother's Book," "New York Letters," etc. III. For children of eleven and twelve years of age. New York: C. S. Francis & Co.

This little volume, one of an admirable series, consists of tales, poems, and sketches adapted to the tastes of children; written in that pure and loving spirit so characteristic of everything from the author's pen—all in her happiest and best vein. To those who know the author, the announcement is enough; and to those who do not, we can only heartily commend whatever she writes—sure that we run no risk in doing so.

28.—*Greenwood Illustrated,* in a series of Picturesque and Monumental Views, in highly finished line engravings, from drawings taken on the spot. By JAMES SMILLIE. The descriptive notices by N. CLEVELAND. Part III. New York: R. Martin.

We spoke in terms of high commendation of the two previous parts. The present is equal in all respects. It contains a correct map of Greenwood, surrounded by four beautiful views of Lorn Girt Hill, Ocean Hill, the Monument to Wm. A. Lawrence, Arbor Water, and the Receiving Tomb. There are, besides, a view of the Tour Fern Hill, and another of Ocean Hill.

29.—*Julia Ormond;* or, the New Settlement. By the authoress of "The Two Schools." New York: Edward Dunigan.

This tasty volume forms the seventh of "Dunigan's Home Library," a series of tales of a social, moral, and religious tendency, designed chiefly for Catholic families. The beautiful style in which they are published, as well as their literary merit, will render them attractive to many who do not belong to the church

THE

# MERCHANTS' MAGAZINE,

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BY FREEMAN HUNT, EDITOR AND PROPRIETOR.

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HUNT'S

# MERCHANTS' MAGAZINE.

MARCH, 1847.

## Art. I.—HISTORICAL SKETCH OF NAVIGATION AND NAVAL ARCHITECTURE.

NUMBER V.—NEW SERIES.

A military marine is the only arm by which the power of this confederacy can be estimated, or felt, by foreign nations, and the only standing military force which can never be dangerous to our liberties at home.—JOHN QUINCY ADAMS.

COLONEL BEAUFOY made frequent representations, to those in authority, of the importance of following up the investigation of "the resistance which water opposed to solids, in passing through it," by further experiments, at the expense of the government; but his suggestions were unheeded, and no attention was paid to the subject, after his decease, until researches were commenced, in 1841, by J. Scott Russell, under the direction of the "British Association for the Promotion of Science and the Arts." He has made two reports to the Association, the first in 1842, and the second at the meeting held at Cork, in 1843; but, thus far, he seems to have confined his operations to ascertain the effect of the surface of solids in diminishing the resistance, in passing through water, without regard to dimensions, or any other element; and, to prove its influence, four boats were made, all having the same length, breadth, and depth—the same area of form of midship section, and all loaded to the same weight, displacement, and draft of water; the only difference being in the character of the "water lines," as he rather indefinitely terms them—that is, the mere contour. The result was favorable to what he calls the "wave line," which had been hypothetically assumed, as the most appropriate.

This synthetic mode of proceeding, in researches for truth, is not to be depended upon in such physical inquiries; for it is beginning at the wrong end in the establishment of principles, and has long been repudiated by the schools of philosophy, as not merely fallacious, but so utterly ineffectual, as not to be tolerated in any of the scientific societies and acade-

mies of the present age. It was the great resource of metaphysical and scholastic controversialists in olden time, and still is, where bewilderment and deception are the objects desired, rather than elucidation; but those who enter the career of intelligence, in search of the unknown, with such a guide, will never find it: for their direction is inverted. They have taken the back track, and are rushing from the goal towards the starting point, instead of proceeding from effects to causes, and evolving therefrom principles.

Still, Mr. Russell may be prosecuting other experiments analytically, and it is to be hoped such is the case; for the object to be attained is most worthy the attention of the scientific association, which has so liberally furnished the means for its accomplishment. It is but just to infer that what has been published does not include all that has been done in the progress of investigation, or that facts, causes and principles will not be ultimately ascertained, in sufficient numbers, to establish a more perfect system of naval architecture.

The system at present used by the Swedish naval engineers, in the construction of ships of war, was the result of the laborious researches of Chapman. It is called the parabolic method, and is explained in a work entitled, "Forsak till en Theoretisk Afhoudling att gifnaat Dinie Shepderas ratta Storlek och Form Likaledes for Fregetten och windere Bevavade Fartyg of F. H. of Chapman."

Having attempted to give a brief account of the past and present condition of naval architecture, and the various modes in which efforts have been made to increase and combine the velocity of ships with capacity, stability, strength and safety in their construction, I shall now present the results which have been obtained, by the investigations that have been instituted, in relation to the movement of solids through fluids, and such of the facts and principles which have been established in hydraulics and mechanical science as are applicable to ship-building, with suggestions of the expediency of their being made the basis of experiments, which, it is confidently believed, can then be conducted in a manner so much more simple, direct, and expeditious, than any which have hitherto been undertaken, as to render more certain the solution of the problem which has so long claimed attention, and is so important for facilitating the intercommunication between all nations, and the various portions of each, by improvements in vessels of every denomination, which are either employed in navigating the ocean and our extensive bays, sounds, rivers, and lakes, for the transportation of merchandise and passengers, or are destined for the fleets of war.

Colonel Barclay ascertained the following facts:—

1. A cone will move through the water with less resistance having its apex foremost.

2. The bottom of a floating solid should be triangular, it being the form that is least resisted when moving in the direction of its longest axis.

3. The greatest breadth should be at the distance of two-fifths of the length from the forward end.

### ESTABLISHED PRINCIPLES IN HYDRAULICS.

1. The chief resistance to be overcome in moving a solid through a liquid, is that of the prism of water, the area of whose cross-section is equal to that of the body moved.

2. The resistance to a solid moving in a liquid increases as the squares of the velocity.

3. The stability of a solid, in a fluid, is in direct proportion to the length, and increases as the cubes of the breadth; so that adding a quarter to the width doubles the stability.

4. There is a lateral retardation to the movement of a solid through a liquid; and for the following explanation of which, as well as the amount of resistance, as compared with that occasioned by the area of the cross-section, I am indebted to Professor Treadwell, who may justly be considered as the American Archimedes in mechanical science.*

When a solid body is moved in a liquid, as water, there is no motion between the surface of the solid and that of the liquid, and consequently no friction, for the reason that the film of water in immediate contact with the solid adheres to it, by a peculiar form of attraction. Instead, therefore, of the surface of the solid sliding upon the liquid in contact with it, a film of the liquid must move with the solid, sliding upon the particles of liquid situated upon the outside of it. These particles, however, cannot remain stationary; for, being attracted by the particles constituting the film upon the solid, as much as by those situated farther from the solid, they will be carried along by the former with a celerity less than that of the solid, being retarded by their inertia and adhesion to the particles situated still further from the solid.

In this way, we may conceive of the water, upon the outside of the solid surface, as divided, for a considerable distance, into definite films, infinitely thin, each sliding upon the other. Under these conditions, therefore, the friction is that of a liquid sliding upon a liquid. The resistance thus produced is exceedingly small, if sufficient to be made sensible, as is evident from the great motion produced in the waters of the ocean by the small disturbing force from the action of the moon's attraction, which produces the tides.

The resistance thus offered to the sides of a solid, moving in a liquid, whatever it may be in amount, is not to be attributed to friction, but to the viscidity of the liquid, and to the little eminences upon the sides of the solid, which constitute its roughness, and displace the liquid in opposition to its inertia, like so many separate solids.

Colonel Beaufoy ascertained that this combined lateral resistance, on a smooth-pointed surface of seventy feet, was equal to that formed by removing the water in the passage of a body having a cross-section of one foot area; the prow and stern of this body terminating at acute angles. So that every square foot of the cross-section of a ship should be connected with about seventy feet surface on the sides and bottom, to give the least resistance; which requires that a vessel ten feet wide, and two feet deep, below the surface of the water, should be at least one hundred feet long.

5. A vessel requires a greater power to move it, in a narrow and shallow channel of water, than in a broad and deep one.

This fact was first noticed by Dr. Franklin, when passing through a

* Rumford, Professor of Science applied to the Arts, in Harvard University, and the inventor of the steam printing-press, the machinery for spinning hemp and making cordage in the U. S. navy-yard in Charlestown, and of the method of making wrought-iron cannon, in such a perfect manner as to give them a decided superiority over those of cast-iron and bronze.

canal in Holland, in 1761. Perceiving, in the course of a day's excursion, that the "trockschuit," in one of the sections of the canal, seemed to move slower than usual, he asked the boatman what was the reason; who answered that the season had been dry, and the water was consequently low, which rendered it more difficult for the horses to draw the boat. After returning to England, he inquired of the Thames watermen whether they were sensible of any difference in rowing in shallow or deep water; and they all agreed that there was a great difference, but differed as to the amount; varying in their estimates from one mile in six to one in three.

Not having seen this subject mentioned in any philosophical work, he determined to make an experiment to verify the fact. Having formed a trough to contain water, fourteen feet long, six inches wide, and six deep, and placed therein a little boat, which was moved by the means of a silk thread, pulley, and weight, he found that the difference of time, in seconds, between its passing through the water, when only one inch and a half deep and four inches deep, was as 101 to 79, or nearly one-fifth.*

This principle has been adopted in the construction of canals; and the great depth and breadth proposed by General Bernard, for the Chesapeake and Ohio Canal, was for the purpose of equalizing the time, in passing through it, with that on the Erie Canal, in the State of New York, by giving such an increased velocity to the boats as would counterbalance the delay occasioned by the extra lockage, in passing the Alleghany mountains. Professor Treadwell thus illustrates the principle:—

A boat six feet wide, three feet deep, and twenty feet long, being placed in a canal eight feet wide and four feet deep, and moved through the water twenty feet, a quantity of water, equal in volume to the boat, (namely, 360 cubic feet,) must pass by its sides and bottom, in a direction opposite to that of the boat, to occupy the space which was before occupied by the boat. The area of the channel, through which the water passes, is fourteen feet; and if the velocity of the boat be five feet a second, the time of the passage being four seconds, the water must move with a velocity of about six and a half feet a second, over the bottom of the canal.

If the same boat is placed in a canal ten feet wide and five feet deep, and moved as before, the same quantity of water must pass the sides and bottom, but the area is now thirty-two feet; consequently, the velocity of the water will be but $2\frac{8}{10}$ feet per second. Then, if the velocity of the boat, measured from the side of the canal, be five feet a second, its velocity over the water, which is moving in the opposite direction, will be, in the first case, $6\frac{1}{2}+5=11\frac{1}{2}$; and in the second case, $2.8+5=7.8$ feet; and the resistance to the boat will be as the squares of these numbers, viz: 132 and 61.

With these established principles as the basis of inquiry, and the problem to be solved being how the form of any vessel of the usual dimensions, employed in the merchant, packet, or naval service, may be so changed without a diminution of capacity, or an increase of the propulsive power, as to insure greater *velocity*, it is evident that it must be chiefly accomplished by a reduction of the area of the cross-section, whereby the resistance, occasioned by the prism of water, opposed to the movement of the vessel, is lessened; and this can only be done by a reduction of the

* Sparks's Works of Franklin, Vol. VI., p. 283.

dimensions of breadth and depth, while the space thus lost must be regained by an increase of the length. But if mere *capacity* is required to be augmented, with the retention of the speed obtainable, by the vessels assumed as the models to be altered, and without any increase of the motive power, it can be effected by adding length, while the breadth and depth are retained; for the cross-section will be the same, although the capacity of the vessel may have been doubled, by the extension of the longitudinal dimension.

The requisite increase of the length of a vessel, as compared with its breadth and depth, to obtain the greatest velocity, with a given motive power, must be determined, without regard to that form of the sides, bottom, bows and stern, which may be deemed the most favorable for passing through the water. For this purpose an experiment should be made, to ascertain how far the length can be increased, with a fixed depth and breadth, before the *lateral retardation*, which has been explained in the hydro-principle, No. 3, operates adverse thereto. This may be done with an apparatus like that employed by Doctor Franklin, to determine whether a vessel was moved with less power in deep than in shoal water. This having been accomplished, it is then to be considered how great a portion of the length can be retained, in the construction of steam and other ships, and at the same time render them sufficiently stable, strong, and safe, in navigating the ocean.

The next most important object, is the ascertainment of such a contour, for the hull, as shall best combine the qualities for affording celerity of movement through the water, with stability, capacity, manageableness, and security in all kinds of weather.

As primary elements in this investigation, these two facts, which were established by Colonel Beaufoy, must be duly considered: first, that "the bottom of a floating solid should be *triangular*, it being the form that is least resisted when moving in the line of its axis;" and second, that "the greatest breadth should be at the distance of two-fifths of the length from the forward end."

The first being the perfect type of the cross-section, it should be only so far deviated from, as may be found indispensably necessary, for giving sufficient capacity and stability.

It is very desirable that there should be some perfect scientific system devised, by which the best possible form can be certainly given by the naval constructor, to the sides, bottom, bows and stern of vessels of every denomination; and as, in all other arts, principles have been established for regulating the manner of proceeding in each mechanical operation, it is probable that there may be devised equally definite and uniform laws or rules, for the projection of the form of ships. Is it not, then, worthy the attention of the scientific, to inquire whether the most perfect profile, for all the horizontal, longitudinal, and cross-sections, may not be that of a hyperbola, parabola, or an ellipse, as they are capable of infinite variation, but in conformity to known geometrical principles. They were adopted by the Greeks for producing that graceful form to all the carved mouldings of their superb orders of architecture, and to those precious antique vases, which have been so universally admired, but which were inexplicable, until science recently revealed the fact that they were derived from the section of a cone. The paths of some of the most remarkable comets which have been observed, while passing their perihelions, were hyper-

bolas. The parabola is the line described in the movement of all projectiles, from that of a pebble, hurled by the hand of a child, to the massive shell, thrown from the ramparts of a castle; and all the planets and most of the comets perform their periodical revolutions, in elliptical orbits.

It has been ascertained that in constructing the most powerful metallic mirror, for collecting parallel rays of light in a single point, a curved surface, which is generated by the revolution of a parabola about its axis, is the best that can be employed, as it will reflect all the rays incident upon it, to the focus of the generating parabola, which no other form of curve will accomplish.

By adopting the hyperbola, parabola, or ellipse, for the horizontal and vertical lines of the contour, from stem to stern, and from the keel to the rail, all the parts of the hull may be projected on strictly scientific principles, and a form thus obtained, which may be easily transferred to vessels of all sizes, and for any kind of service.

As the hyperbola and parabola approach the nearest to a triangle, which is the central vertical section of a cone, and may be so varied in their curves, and the manner of adaptation for producing convex or concave surfaces, that the triangular configuration of the bottom, which has been ascertained to be the best, will be the least deviated from, and yet afford any required capacity and stability.

These remarks, however, are to be considered, rather as intimations than established elements, from which the desired results may be attained; and have only been presented for the purpose of inducing experiments, to establish some uniform mode, by which the most perfect form can certainly be derived, in the construction of ships, without the possibility of those unavoidable deviations, which arise from the adoption of the arbitrary and inadequate rules that are generally relied upon.

But after all, it is by *length* that *velocity* and capacity are mainly to be gained, rather than by any peculiar configuration of the hull, below the water-line; and although other advantages may be acquired, the latter are worthy of the most serious consideration, as accessaries in the attainment of the former, as well as for stability and manageableness.

It is very remarkable, that among all savage and semi-barbarous nations, there has either been perpetuated by tradition, the principle, which may have been established in a very remote age of ancestral civilization, or it has been ascertained as a fact, during centuries of practical experience, that *length* is the chief element in the construction of a vessel, in which speed is desirable. The birch canoes of the northern tribes of Indians in this country, the batteaux of the voyageurs and hunters of Canada, and the boats of all the natives in the islands of the Pacific ocean, are distinguished for their length and celerity of movement, whether propelled by paddles or sails.

Commodore Bainbridge stated, that when he was at Constantinople in 1800, as commander of the frigate George Washington, he was very much astonished at the rapid motion of the innumerable boats which were constantly employed in the spacious harbor of that city. They were generally propelled with only two oars, but with such a velocity as he had never seen given to any boat, for they passed his six-oared gig like an arrow. When asked what was the peculiar form that gave such extraordinary speed, he replied that it was derived from their great length, as com-

pared with the dimensions of breadth and depth; for, in all other respects, the form was of the simplest kind.

As savages are almost entirely dependent upon hunting and fishing for their daily food, and having no other artificial means of transportation than that afforded by a boat, it is of the first consequence that they should be so constructed, as to be moved with the greatest facility, by mere manual power; and therefore it was to have been expected that the only mechanical invention, besides weapons of war, and instruments for killing game and taking fish, should ultimately be so formed, as to fulfil all the conditions required.

The native Asiatic and American navigators of the torrid and temperate zones, have all evinced great ingenuity, in the construction of boats which are remarkable for velocity, and the mode in which they are rendered secure against the disasters of tempestuous weather.

It is stated in the account of the expedition of Lewis and Clark to the mouth of the Columbia River, that the Indians exhibited great skill in the construction of their canoes. Indeed, so much of the intercourse between the different tribes was carried on by water, that their ingenuity was naturally directed to the improvement of their boats. Four kinds were used below the cataract. That most commonly employed was from thirty to thirty-five feet long. It was very light, for although it would contain ten or twelve persons, four could carry it with great ease. The largest variety is only used near the mouth of the river. It is fifty feet long, and is formed of the single trunk of a white cedar or fir-tree. The upper edge of the gunwale is about five-eighths of an inch thick, and four or five in breadth, and folds outward, so as to form a kind of rim, which prevents the water from beating into the canoe. They carry from twenty to thirty men, and ride, with perfect safety, the highest waves.

The Japanese vessels are generally 120 feet long and only twenty wide, and the bottom, below the water-line, instead of being convex, is *triangular*.

The most singular and celebrated variety of the vessels which are employed by the natives in the Indian Ocean, is the Flying Proa. The simplicity of its contrivance, and the extraordinary velocity with which it passes through the water, are equally worthy of admiration, and merit the highest place among the mechanical productions of civilized man.

In construction, the proa is directly opposite to every principle of marine architecture which has been adopted by the most scientific nations. The head and stern are both sharp, as this boat never puts about, but sails either end foremost; yet in such a manner, that only one and the same side is constantly exposed to the wind. The lee-side is perpendicular, and the form is like that of half of a batteau, divided vertically lengthwise. From the extreme length, shape, and narrowness of the vessel, it would immediately capsize, but for a contrivance as extraordinary and curious, as it is effectual in preventing an accident of that fatal character. A frame, or out-rigger, is attached to the convex or weather-side, which extends horizontally ten or twelve feet over the water, to the extremity of which is fastened a log of wood, fashioned into the form of a boat. The weight of the frame balances the proa, and prevents it from falling over to lee-ward under a pressure of sail, as well as secures it against all risk of capsizing.

The hull is formed of two pieces of wood joined edge-wise. The bot-

tom, or part next to the keel, is about two inches thick, and gradually diminishes to the gunwales, where it is reduced to an inch. The length is thirty-seven feet and a half, the breadth only three feet.

The canoes of New Zealand, as described by Captain Cook, were long and narrow, with a triangular bottom, and sharp at both ends. They carried from forty to one hundred and twenty men. He measured one which was sixty-eight and a half feet long, five broad, and three and a half deep.

The Ivahohs, a kind of boat used by the inhabitants of Otaheite, is fifty-one feet long, three feet wide, and three and a third deep.

Thus it appears that the length of the swift boats, of those various barbarous nations, is from ten to seventeen times their breadth, and, except the proa, are beautiful in form, and all of them remarkable for their safety even in rough seas. The length of the Egyptian ships, built by Philopater, was more than seven times their breadth.

Sir Joseph Dudley, who was appointed an admiral by Henry VIII., and made Duke of Northumberland by Edward VI., first suggested *length*, for the purpose of obtaining velocity and capacity; and in conformity to that principle recommended an entirely new model for ships of war, which he divided into seven classes. The length of the Galleon, or first class, was four times the breadth, and that of the others was gradually increased, until in the seventh class, called the Passa Volante, which was chiefly intended for speed, it was ten times the breadth. But this early enunciation of a great truth was utterly disregarded, until by its partial adoption in France, during the administration of Colbert, when the war-ships of that nation became celebrated for their superiority over those of all the other maritime powers of Europe, not only for their efficiency to meet the tremendous shocks of tempest and battle, but for their velocity.

Notwithstanding the obvious demand for the direct application of one of the first and most clearly established principles in hydraulics, and the facts by which it had been illustrated, in its practical adoption by savage nations, for centuries; still the only mode in which it was attempted, for a long period, to obtain increased velocity, was by variations of the lines of the sides, bottom, bows, and stern, on the erroneous supposition that the *lateral retardation*, or "friction," as it was termed, was the chief obstacle to be considered and overcome.

There has been a too general apprehension that greater *length* than was commonly adopted—which did not often exceed three times the breadth, in all classes of vessels—could not be given without so much diminishing their strength as to endanger their safety in navigating the ocean. So universal and confident has been the belief in the correctness of that assumption, that it has been acted upon with the same implicit confidence as if its validity had been fully verified by repeated experiments; for there did not appear any nautical Archimedes, who had the temerity to doubt and test its reality, in defiance of the credence and custom of maritime nations, until very recently. At last experiments have been made to a considerable extent, in merchant vessels, steamers, and ships of war, and their length has been rapidly increased, within a few years, in Europe and this country, and may be still farther extended, without rendering them less safe as sea-going vessels, by adopting Sir Robert Stepping's diagonal and triangular system of ship-building, and doweling the sides and ends of the timbers of the frame, as well as filling up the spaces between them, and

caulking and paying them over, so as to make the whole fabric not only stronger, but more secure against leakage, as is now done in the national ship-yards.

As a further security, in vessels of great length, why could not a truss-frame be introduced, from the stem to the stern-post, in all kinds of vessels, and at least as high as the beams of the lower gun-deck, in ships of war, on the plan of either Town's, Hassard's, or How's bridges? Such a structure would prevent hogging and settling amidships, besides giving vastly greater strength to the whole hull. NEARCHUS.

NOTE.—The end of this series of Letters, but the subject may be hereafter resumed, and continued to the period in which we live.

## Art. II.—THE COAL MINES AND COAL TRADE OF BELGIUM:

### HISTORICAL, STATISTICAL, AND COMMERCIAL.

DISCOVERY OF COAL AND PROGRESS OF MINING.—AREA OF COAL FIELDS IN BELGIUM.—WESTERN OR HAINAULT DIVISION.—EASTERN DIVISION.—COAL BASINS.—COAL STATISTICS OF BELGIUM.—PRICES OF BELGIUM COALS AT THE PIT'S MOUTH AND CANALS.—EXPORTATION OF COAL FROM BELGIUM TO FOREIGN COUNTRIES.—BELGIAN IMPORTATION OF COAL.—COALS AND CINDERS.—IMPORT DUTIES.—EXPORT DUTY.—STATISTICAL TABLE OF THE PRODUCTION, EXPORTS, IMPORTS, AND CONSUMPTION OF COAL IN THE KINGDOM OF BELGIUM.—THE FAT COAL.—ANTHRACITE COAL.—PROVINCE OF NAMUR.—SMALL AND DETACHED COAL BASINS IN BELGIUM.—CONDITION AND PROSPECTS OF THE BELGIAN COAL MINES.—THE ROYAL RENTS.—CONCESSIONS.—PREPARED FUEL.—FEATS.—CANALS AND RAILROADS OF BELGIUM.—STEAM-ENGINES.

THE discovery of bituminous coal in Belgium,* as is stated by the local historians, was first made, in the country of Liege, by a blacksmith, named *Hullos de Plennevaux*. This occurred, A. D. 1198 or 1200, and hence is said to have originated the now common name of the mineral carbon, *Houille*. It is only a few years ago, that, opposite to the entrance of the collegiate church of St. Martin, they yet showed the place where the first opening on the coal was made.

The coal mines of Belgium, like those of France, have, from a very early period, been subjected to the inspection of government officers. This system, notwithstanding its seeming interference with the exercise of private rights, and with the management of individual property, has much to recommend it; and in fact, has been strongly urged to be put in practice in Great Britain, whose coal mines, so vital to her strength and prosperity, it seems surprising, should so long have been left entirely to the unassisted efforts of individuals, without organization or even the supervision of the State.

So early as the fifteenth century—A. D. 1487—the prince bishop of Liege issued a commission on mines; which commission found that there

| | | | | |
|---|---|---|---|---|
| * KINGDOM OF BELGIUM.—Entire area of land, | 2,942,574 | hectares | 7,271,100 | Eng. acres. |
| Area under cultivation | 2,220,000 | " | 5,485,620 | " |
| Ascertained area of coal land in 1838, $\frac{1}{24}$ of the whole, or | 134,113 | " | 331,392 | " |
| Amount of fixed and provisional concessions, for working coal | 123,765 | " | 305,820 | " |
| Area of do., in 1843, $\frac{1}{17}$ | 164,649 | " | 411,787 | " |
| " " 1838, for working iron | 50,221 | " | 124,096 | " |

Population, about two persons to each hectare, 4,242,000.

had been established, from the most remote times, a court or jury of four persons, afterwards increased to seven, called "*La Cour des voir Jurés du Charbonnage*," for the investigation and direction of the affairs of mines; and that two of its members were obliged to descend, periodically, (every fifteen days,) to examine them.

King Philip, in 1635, passed an ordinance touching the coal mines of Namur, and Charles of Spain, as duke of Limbourg, in 1694, issued an edict of fifty-six articles on the coal mines of that duchy. During our own times, France, the Netherlands, and Belgium, have distinguished themselves by issuing laws for the regulation of the working of their respective mines; leaving England the very last in the field to establish a system of such important, humane, and necessary judicial interference.*

In Spain, where the business of coal mining is as yet in its infancy, the importance of carrying on the colliery workings agreeably to the mining laws that are already in force as regards other minerals, has recently become the subject of application to the government, from the coal proprietors of Asturias. They complain that, "at present, the peasants, without any subjection to the rules of arts, or to the payment of dues, raise up the coals by means of pits, sixty or more Spanish yards deep; and, as they have nothing to disburse for scientific direction, and incur none of the other expenses which fall upon the regular companies, they prevent the proper development of this new source of industry. All we want, therefore, is the strict observance of the laws, and special protection from the government."†

Area of Coal Fields in Belgium.—This country is traversed in a direction from nearly W. S. W. to E. N. E., by a large zone of bituminous coal formation. The statistical divisions of this band have not been uniformly adopted or described by local topographers, and some confusion has occasionally taken place among authors from this circumstance. We shall, therefore, as far as practicable, adhere, in the following notes, to the arrangement ordinarily observed in the official reports made to the Belgian government; at the same time, we shall avail ourselves, wherever it may be desirable, of the statistical details which have occasionally been furnished by cotemporary authorities.

The entire region has been customarily described under two principal divisions, as follows:—‡

The Western or Hainault Division comprises—I. A. The two basins known as the Levant and the Couchant of Mons. B. That of Charleroi. II. That of Namur.

The latter lies within the province of Namur; while the two former are within the province of Hainault, stretching into the Department du Nord in France, where its traces are lost, a little below Douay.

The Eastern or Liege Division, commencing in the province of Namur, and embracing a small portion thereof, traverses the province of Liege, directing itself towards Rhenish Prussia, where it communicates with the coal basins of Eschweiler and Rolduc, and with the duchy of Limbourg, in the low countries. The point of division between this and the preceding, is said to be the deep and narrow gorge, through which the

* Articles on the causes and means of prevention of accidents in coal mines, in the Mining Journal of London, March 4th and August 5th, 1843.

† Address of the *Espada* Colliery Company of Oviedo, to the Central Mining Junta of Carthagena.

‡ Bulletin de la Commission Centrale de Statistique de Belgique, 1844.

Sampson River flows, in the province of Namur. The whole belt is about a hundred miles in length; or, including its prolongation into France, one hundred and fifty miles.

The subdivision of this great Belgian coal zone is as follows:—

ACCORDING TO GEOLOGICAL AREAS.

| Coal Basins. | | Length in Eng. miles. | Square miles. | Hectares. | English acres. |
|---|---|---|---|---|---|
| Western or Hainault | I. In the province of Hainault, 75,725 hect's, 187,116 ac's, 39<br>II. In that of Namur, 14,326 hectares, 35,400 acres, ..... 18 | 57 | 325 | 90,051 | 225,516 |
| Eastern or Liege..... | II. In the province of Namur, 2,317 hect's, 5,725 acres,... 6<br>III. In that of Liege, 44,745 hectares, 103,151 acres,.... 33 | 39 | 160 | 44,062 | 108,876 |
| Total, according to the official report, in 1842*..... | | 96 | 485 | 134,113 | 331,392 |

As the government returns are made, not according to any supposed geological divisions, but with reference to the provincial areas, the latter will be represented as below:—

ACCORDING TO PROVINCES.

| | Length in miles. | Area in sq. miles. | Hectares. | Eng. acres. |
|---|---|---|---|---|
| I. In the province of Hainault..... | 39 | 274 | 75,725 | 187,116 |
| II. " " Namur..... | 24 | 59¼ | 16,643 | 41,125 |
| III. " " Liege..... | 33 | 151½ | 41,745 | 103,151 |
| | 96 | 485 | 134,113 | 331,392 |

Being the $\frac{1}{72}$ part of the superficial area of Belgium.

There appears to be a discrepancy between these estimated areas, and the official aggregate of "concessions," or grants to work the coal beds within the Belgian region. The difference is explainable, on the one hand, on the probable ground that the concessions frequently occupy more area than strictly belongs to the coal formation; and on the other that the entire mineral areas are not yet conceded. We annex the returns of those grants of mining lands:—

ACCORDING TO CONCESSIONS PRIOR TO 1842.

| | Hectares. | Hectares. | Hectares. |
|---|---|---|---|
| I. In the province of Hainault, | Mons District, 52,607<br>Charleroi " 30,686 | 83,293 | 205,817 |
| II. " " Namur,..... | | 11,887 | 29,372 |
| III. " " Liege,..... | | 28,585 | 70,631 |
| | | 123,765 | 305,820 |

It will be necessary to bear in mind, with reference to these areas, that one series represents the superficies of the geological basins, while the other is that of the lands conceded, and provisionally granted.

The coal field of Belgium is said to be superior to any on the continent of Europe, and is estimated to be more valuable than the silver mines of Peru, or the gold of Brazil. The basin of Mons contains above *one hundred and thirty* coal seams, disposed one above the other; all workable and all wrought. The four principal collieries of Mons, Marimont, Liege, and Charleroi, yielded, in 1838, 3,260,271 English tons, and 4,500,000 tons in 1844.

One of the richest deposits of coal that is known, forms the nearly con-

* Rapport presente au Roi. Statistique de la Belgique, 1842—the latest official return.

tinuous series of coal basins, placed along a belt 150 miles long, and from six to ten miles broad, which, passing through Belgium, crosses the north of France, and contains the collieries of Valenciennes, Condé, Mons, &c. At Liege, the measures are said to comprise eighty-three beds, and at Mons there are no less than *one hundred and fifty* coal seams.

These coal basins produce, at the present time, an annual amount of four and a half millions, or more, of tons of coal; worth fifty millions of francs, and employ more than forty thousand colliers.

The Belgian coal formation is of the same geological horizon with the great coal fields of England. It is remarkable for the undulating character of the beds of coal. Through a great part of its southeastern boundary, it is *inverted, so as apparently to dip under the older formations;* but on a portion of its northern margin, the earlier formations emerge in their regular order.*

In one respect, the southern coal fields of Belgium differ from those of other countries, especially of Scotland and Wales. This is in the comparative absence of seams of iron ore. A contributor to the London Mining Journal asserts that coals and iron are nowhere to be found together in Belgium.

We proceed to notice the principal coal statistics of this country. In Belgium, the coal business has felt the influence of political changes. From 1802 to 1832, instead of increasing, it experienced some small diminution in the annual amount of production. Latterly, this was no doubt owing to the loss of the exclusive supply of Holland, with which this country had been previously united. From 1832, it considerably increased, being now probably about double the production of that year; owing to the vast amount of additional capital brought by new companies into the trade. We will briefly trace the progress of Belgian mining industry.

In 1826, there were above 240 mines in work; all very rich, and giving employment to several thousand persons. In 1830, 314 coal pits were in activity. In 1838, there were in full operation, 307 concessions; comprising 652 pits or places of extraction; employing 37,171 miners and 384 steam-engines, of the aggregate power of 15,061 horses. These forces raised 3,260,271 tons of coal, whose value at the pit's mouth, was returned at £1,728,784 sterling, or $8,278,181, United States currency, or 42,818,180 francs. The total number of steam-engines in the region was 1,171, with a force of 32,109 horses.† In 1842, the three principal coal districts, comprising 307 concessions, employed 38,502 workmen, and, including their families, supported 135,000 persons.

In 1843, the three coal districts comprised 411,787 acres of coal land, held under concession from the crown, by different companies, and the mining operations were greatly extended; producing, it is stated, nearly 4,000,000 of tons. It was officially announced in this year that the capital embarked by different associations, in coal and iron establishments, was 40,540,000 francs, or £1,637,318 sterling, $7,836,400.

In 1844, there were 307 coal concessions in Belgium; 224 of these were the property of companies, and 83 belonged to anonymous associations. Their annual production was estimated at about 4,500,000 tons of coal, being more than 500,000 tons greater than that of France, and one-seventh part of that raised in Great Britain. She exported, this year,

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* Sedgewick and Murchison in Geol. Trans., 1840.
† Bulletin de la Commission Statistique, 1843.

1,300,000 tons. The value of the coal produced this year, was estimated at 41,000,000 of francs.*

The production during the year 1845, has been announced by the engineer of mines, at 4,960,077 tons; exceeding the indigenous production of France, by 1,177,388 tons. This is greater than was ever before known. The increase in the province of Liege was 25 per cent, and in Hainault, 10 per cent over 1844.

The result of a geological survey of the mineral resources of the Sambre and the Meuse, by Mr. Sopwith, in 1846, shows that the coal mines in that part of Belgium, are capable of producing a quantity equal to one-tenth of all the coal raised in Great Britain.

In order to combine in one view, the various statistical details of the Belgium coal trade, of which we have given the foregoing outlines, we arranged the whole in the following tabular statement, showing the number of concessions, collieries, and pits in operation; their annual production in English tons, of 10,146 metrical quintals each; the average prices of coal at the pit's mouth, the number of miners employed, and the value of the produce at the mines, rendered in Belgian, French, American, and English currencies, in the provinces of Hainault, Namur, and Liege:—

| Years. | Concessions. | Pits in work. | Miners. | Production in tons. | Price per ton, fr. cts. | VALUE OF PRODUCTION AT THE MINES. Belgian and French francs. | American Dollars. | Pounds Sterling. |
|---|---|---|---|---|---|---|---|---|
| 1802..... | .... | .... | ..... | 2,635,000 | 10.00 | ..... .... | ..... | ..... |
| 1830..... | 224 | 314 | 29,253 | 2,533,761 | 10.23 | 25,920,000 | 5,011,200 | 1,047,600 |
| 1832..... | 224 | .... | ..... | 2,249,000 | 7.54 | 16,957,500 | 3,278,445 | 684,659 |
| 1834..... | 307 | 341 | 28,606 | 2,443,568 | 7.82 | 19,108,700 | 3,694,276 | 772,280 |
| 1836..... | 307 | 471 | 29,144 | 3,056,464 | 10.95 | 30,533,922 | 5,801,447 | 1,221,300 |
| 1838..... | 307 | 531 | 37,171 | 3,260,271 | 13.93 | 42,818,180 | 8,278,181 | 1,728,784 |
| 1840..... | 307 | 660 | 38,502 | 4,000,000 | 23.85 | 55,400,000 | 10,692,200 | 2,209,132 |
| 1844..... | 307 | .... | ..... | 4,500,000 | ..... | 30,990,772 | 5,991,550 | 1,229,792 |
| 1845..... | .... | .... | ..... | 4,960,077 | ..... | ..... | ..... | ..... |

In point of rank, as a coal producing country, Belgium stands the second in Europe, and probably in the world; Great Britain being the first. France and the United States are about equal producers at the present moment, and Prussia is the fifth.

The following table shows the periodical prices of Belgian coals at the pit's mouth and the canals, per English ton of 10,146 metrical quintals, in Belgian, American, and English currencies:—

| Years. | Quality. | Francs. | Dollars. | s. | d. | Description. |
|---|---|---|---|---|---|---|
| | I. MONS DISTRICT.—A. AND B. | | | | | |
| 1829..... | Best Coal... | 15.00 | 3.00 | 12 | 0 | Flenu Coals at the Pit. |
| 1836..... | " ... | 17.00 | 3.28 | 13 | 8 | |
| 1837..... | " ... | 19.00 | 3.66 | 15 | 4 | |
| 1838..... | " ... | 20.00 | 3.86 | 16 | 1 | At the Canals. |
| 6 yrs. to 1841. | Average..... | 13.00 | 2.75 | 10 | 6 | Pit's mouth. |
| | I. CHARLEROI DISTRICT.—C. | | | | | |
| 1829..... | Best Coal... | 18.00 | 3 47 | 14 | 6 | Pit's mouth. |
| 1836..... | " ... | 22.00 | 4.24 | 17 | 9 | |
| 1837..... | " ... | 23.00 | 4.43 | 19 | 0 | |
| 1838..... | " ... | 23.00 | 4.43 | 19 | 0 | At the Canals. |
| 1843..... | Coking..... | 7.00 | 1.35 | 5 | 6 | Pit's mouth. |
| | | 10.00 | 1.93 | 8 | 0 | |
| 1844..... | Various..... | 13.00 | 2.50 | 10 | 6 | |
| | | 19.00 | 3.67 | 15 | 4 | |

* The value of the coal production of France, the same year, was 30,000,000 of francs. That of England, at the pit's mouth, about 225,000,000.

II. CENTRE DISTRICT.

| Years. | Quality. | Francs. | Dollars. | s. | d. | Description. |
|---|---|---|---|---|---|---|
| 1838..... | Large Coals. | ..... | 4.52 | 18 | 8 | At the Canals |

III. LIEGE DISTRICT.

| | | | | | | |
|---|---|---|---|---|---|---|
| 1829..... | Aver. of best. | 20.00 | 3.86 | 16 | 1 | At the Canals. |
| 1836..... | " | 22.00 | 4.24 | 17 | 9 | |
| 1838..... | " | 25.00 | 4.82 | 20 | 0 | |
| | | 28.05 | 5.50 | 23 | 0 | |
| 1830..... | Average..... | 10.23 | 1.97 | 8 | 3 | At the Pit. |
| 1832..... | " | 17.54 | 1.45 | 6 | 1 | |
| 1834..... | " | 7.82 | 1.51 | 6 | 4 | |
| 1836..... | " | 10.95 | 2.12 | 8 | 10 | |
| 1838..... | " | 13.95 | 2.70 | 11 | 3 | |

The following synoptical table of the principal coal districts of Belgium, exhibits the number and areas of concessions; the number of mines, of steam-engines, of horse-power, of workmen employed; the production of coal in tons, the mean amount raised annually by each miner, and the value of the coal at the pit's mouth in each division. Chiefly prepared from the "*Rapport au Roi*," published in 1842, by the minister of public works:—

| Details. | Years. | Hainault or Mons, Tournay and Charleroi. | Namur and Luxemburg. | Liege. | Sum Total. |
|---|---|---|---|---|---|
| Number of concessions in operation and dormant..... | 1844 | 154 | 38 | 115 | 307 |
| Area of concessions, fixed and conditional, in hectares of 2,471 acres English each..... | 1838 | 82,293 | 11,887 | 28,565 | 123,765 |
| | 1843 | ..... | ..... | ..... | 144,160 |
| Geological areas..... | ..... | 75,725 | 16,643 | 41,745 | 134,113 |
| Number of pits in work, sinking, and in construction. "Siéges d'Exploitation,"..... | 1829 | 274 | 45 | 103 | 422 |
| | 1834 | 183 | 46 | .... | .... |
| | 1836 | 290 | 69 | 111 | 470 |
| | 1837 | 360 | 73 | 121 | 554 |
| | 1838 | 441 | 90 | 121 | 652 |
| St'm-engines, raising coal & water, | 1838 | 203 | 13 | 90 | 374 |
| " deep'ing & aik'g pits | 1838 | 78 | ... | ... | |
| Horse-power working the mines.. | 1838 | 9,160 | 170 | 4,480 | 15,861 |
| " sinking the pits..... | 1838 | 1,051 | .... | ..... | |
| Number of workmen employed... | 1829 | 19,593 | 750 | 9,350 | 29,693 |
| | 1836 | 20,880 | 889 | 7,375 | 29,144 |
| | 1837 | 23,011 | 1,043 | 9,349 | 33,403 |
| | 1838 | 25,241 | 1,282 | 10,648 | 37,171 |
| | 1841 | 25,635 | 1,865 | 11,002 | 38,502 |
| Production of coal in tons..... | 1828 | 1,761,118 | ..... | 570,084 | 2,331,202 |
| | 1830 | 1,913,677 | 50,000 | 590,084 | 2,553,761 |
| | 1836 | 2,349,374 | 79,174 | 627,916 | 3,056,464 |
| | 1837 | 2,469,604 | 92,473 | 666,729 | 3,228,806 |
| | 1838 | 2,415,909 | 103,954 | 740,400 | 3,260,271 |
| | 1839 | 2,812,256 | ..... | ..... | ..... |
| | 1845 | 3,671,023 | 161,873 | 1,127,181 | 4,960,077 |
| Mean quantity of coal annually raised by each miner, in Belgium.....tons | 1836 | 112.51 | 89.05 | 85.14 | 104.87 |
| | 1837 | 107.32 | 88.66 | 71.59 | 96.76 |
| | 1838 | 95.71 | 81.08 | 69.53 | 87.71 |
| Mean quantity raised in France... | 1840 | ..... | ..... | ..... | 115.36 |
| Value of the coal at the pits....fr. | 1838 | 31,718,260 | 784,838 | 10,315,082 | 42,818,180 |
| Value of the coal raised in the kingdom of France.....francs | 1838 | ..... | ..... | ..... | 29,078,083 |
| | 1844 | ..... | ..... | ..... | 35,497,000 |

EXPORTATION OF COAL FROM BELGIUM TO FOREIGN COUNTRIES.—The principal foreign markets for the coal of Belgium are, at present, France and Holland. Her government has made great efforts of late, to establish

new channels for the sale and consumption of her mineral combustibles. The exportation to France has a little diminished, between 1837 and 1840, and has subsequently much increased, while that towards Holland has steadily augmented.

Of the respective "debouches," or outlets for the transportation of this coal, we shall speak when detailing the separate statistics of the three principal mining districts.

The following table shows the total exportation of coal from Belgium, chiefly to France, from the official records, in Belgian kilogrammes, 1,014¼ to each ton, and English tons :—

| Years. | Kilogrammes. | Tons. | Years. | Kilogrammes. | Tons. |
|---|---|---|---|---|---|
| 1829 | ..... | 867,840 | 1837 | 800,649,729 | 789,600 |
| 1830 | ..... | 621,560 | 1838 | 786,974,866 | 776,100 |
| 1831 | 471,614,528 | 465,100 | 1839 | 756,438,612 | 746,000 |
| 1833 | 583,523,091 | 575,450 | 1840 | 788,748,505 | 777,850 |
| 1834 | 660,013,705 | 650,900 | 1841 | 1,022,955,500 | 1,008,220 |
| 1835 | 702,203,891 | 692,500 | 1842 | ..... | 1,014,715 |
| 1836 | 782,904,021 | 772,100 | 1844 | ..... | 1,300,000 |

The following detailed table of the Belgian exportations of coal, shows the principal foreign countries to which this coal was exported, according to the published official documents, in relation to special commerce. The official returns of France appear generally to exceed in amount those of the Belgian; but we have not thought it necessary to quote them both in this place.

| | TO FRANCE. | | TO HOLLAND. | | TO ALL OTHER COUNTRIES. | |
|---|---|---|---|---|---|---|
| Years. | Kilogrammes. | Tons. | Kilogrammes. | Tons. | Kilogrammes. | Tons. |
| 1787 | ..... | 49,280 | ..... | ..... | ..... | ..... |
| 1789 | 50,730,000 | 50,000 | ..... | ..... | ..... | ..... |
| 1802 | 88,097,710 | 86,830 | ..... | ..... | ..... | ..... |
| 1811 | ..... | 93,630 | ..... | ..... | ..... | ..... |
| 1816 | 202,920,000 | 200,000 | ..... | ..... | ..... | ..... |
| 1820 | ..... | 224,100 | ..... | ..... | ..... | ..... |
| 1830 | ..... | 503,750 | ..... | ..... | ..... | ..... |
| 1832 | ..... | 489,480 | ..... | ..... | ..... | ..... |
| 1833 | ..... | 580,117 | ..... | ..... | ..... | ..... |
| 1834 | ..... | 611,610 | ..... | ..... | ..... | ..... |
| 1835 | 691,653,190 | 682,100 | 5,172,831 | 5,100 | 5,377,870 | 5,330 |
| 1836 | 770,433,285 | 759,750 | 7,288,101 | 7,190 | 5,182,635 | 5,160 |
| 1837 | 790,369,264 | 779,450 | 6,685,400 | 6,590 | 3,595,065 | 3,570 |
| 1838 | 774,784,089 | 764,050 | 7,248,686 | 7,150 | 4,942,091 | 4,910 |
| 1839 | 734,051,986 | 723,900 | 17,551,106 | 17,300 | 4,835,520 | 4,800 |
| 1840 | 723,732,681 | 713,750 | 60,757,444 | 59,910 | 4,258,380 | 4,190 |
| 1841 | 916,127,600 | 902,944 | ..... | 95,650 | ..... | 3,416 |
| 1842 | 915,889,566 | 902,710 | 102,697,000 | 102,697 | *..... | 9,308 |
| 1844 | 1,115,794,900 | 1,096,057 | ..... | ..... | ..... | ..... |

Belgian Importations of Coal, Coke, and Cinders.—Although a largely exporting country, Belgium receives on her frontier, and from occasional sources, a small supply of foreign coal. We derive the following details from the government returns. In regard to the imports from France, we quote the Belgian documents. Those of France generally represent the Belgian exports as greater, and the imports as less, than the Belgian returns.

We annex to this table a statement of the amount of foreign coals annually forwarded through Belgium to various countries.

* Tableau general du Commerce de la Belgique, avec les pays etrangers.

| Years. | IMPORTATIONS. Kilogrammes. | Tons. | From France. Tons. | COMMERCE OF TRANSIT. Kilogrammes. | Tons. |
|---|---|---|---|---|---|
| 1831 | ..... | 770 | ..... | 2,100,000 | 2,070 |
| 1833 | ..... | 7,979 | ..... | 3,731,000 | 3,680 |
| 1835 | 15,583,625 | 15,350 | 14,930 | 6,617,100 | 6,085 |
| 1836 | 22,447,807 | 22,230 | 21,450 | 9,292,505 | 9,164 |
| 1837 | 28,416,835 | 28,020 | 26,070 | 11,566,126 | 11,406 |
| 1838 | 34,705,271 | 34,220 | 28,910 | 11,440,321 | 11,282 |
| 1839 | 28,364,548 | 28,000 | 22,150 | ..... | ..... |
| 1840 | 30,424,435 | 30,000 | 26,100 | ..... | ..... |
| 1841 | 36,980,600 | 36,440 | 28,936 | ..... | ..... |
| 1844 | ..... | ..... | 12,576 | ..... | ..... |

By the Belgian law of the 26th of August, 1822, the transit of coal arriving from one part of a neighboring state, and destined for another part of the same state, is only subjected to a duty of 40 centimes per 1,000 kilogrammes. This is after the rate of 0.39d. or 0.78 cent, per ton.

The quantity of coal which descended the Rhine, from the German provinces, into the Netherlands at Lobith, was as follows:—In the year 1841, 136,925 tons; in 1842, 101,610 tons.*

IMPORT DUTIES PAID ON ENGLISH COAL, PER TON.

| | s. | d. | |
|---|---|---|---|
| In 1778, the import duty on British coal into the Netherlands, was..... | 10 | 0 | $2.42 |
| 1814, and continuing until 1834..... | 2 | 9 | 0.66 |
| 1840, to 1st April, 1842, 14 francs and 84 cents per 1,000 kilogrammes. | 11 | 8 | 2.76 |
| 1842, 30th June, removed altogether. | | | |

IMPORT DUTY PAID BY FRANCE.

| | | | |
|---|---|---|---|
| In 1840, 3 francs, 30 cents per 1,000 kilogrammes..... | 2 | 6 | 0.60 |

Being a producer of coal on an enormous scale, the import of that combustible into Belgium, is of small amount. Until lately, the tariff of import duty on coals was greatly in favor of France.

There are no export duties on coal in Belgium, except a small one to Holland.†

Mons coal has risen in price since 1838, and the Belgian government has consequently acceded to the wishes of the home consumers, and of the British producers, to receive, from 1839, coals free of duty. By France a similar mutual boon has been granted; and the Belgian and French manufacturers are overjoyed at the concession.‡

EXPORT DUTY ON COALS PASSING FROM BELGIUM, BY CANALS AND RIVERS.—The law of the 30th June, 1842, was extended. By this law, Belgian coals passing to Holland, either by sea or by internal communication, were reduced 75 per cent on the duty then paid.§

The treaty between Belgium and the German Zollverein, 16th October, 1844, does not appear to affect the transit of coal. The reduced duty paid by Belgian coals, on entering France, is about 2s. 6d. per ton.

Respecting the following comprehensive general statistical table of the production, exports, imports, and consumption of coal within the kingdom of Belgium, which we have prepared from official documents and from some other sources, we have to premise that most of the details in the third and fourth columns, representing the importations and exportations, are those which commonly appear in the English statistical tables. In the preceding tables will be found the exact Belgian returns,

* Documens sur le Commerce exterieur. Janvier, 1844. † Ibid. Paris, May, 1843.
‡ "Arts and Artisans at Home and Abroad."—*Jellinger Symons.*
§ Belgique Legislation Commerciale. Janvier, 1844.

accurately rendered into English tons from French kilogrammes of 1,014.65 to the ton. The second column, representing the production, is reduced from metrical quintals of 10.146 to one English ton. The fifth column is that of the consumption on the spot, estimated at one-tenth, and not included in the second column.

| Years. | Production at the mines. | Imported. | Exported. | Consumption on the spot. | Tot. consump. in Belgium. |
|---|---|---|---|---|---|
| 1830,..... | 2,533,761 | ..... | 621,560 | 250,000 | 2,162,000 |
| 1831,..... | 2,270,000 | 770 | 468,000 | 227,000 | 2,029,000 |
| 1832,..... | 2,249,000 | 5,790 | 1,287,000 | 224,000 | 1,191,790 |
| 1833,..... | 2,708,000 | 7,979 | 576,000 | 270,800 | 2,404,000 |
| 1834,..... | 2,747,000 | 10,915 | 654,000 | 274,000 | 2,378,000 |
| 1835,..... | 2,902,000 | 8,840 | 685,000 | 290,000 | 2,516,000 |
| 1836,..... | 3,056,464 | 12,830 | 761,000 | 314,000 | 2,622,294 |
| 1837,..... | 3,230,806 | 16,675 | 789,083 | 323,000 | 2,784,398 |
| 1838,..... | 3,260,271 | 22,034 | 775,000 | 326,000 | 2,838,332 |
| 1839,..... | 2,812,256 | 28,678 | 746,000 | 281,000 | 2,840,934 |
| 1840,..... | 3,170,000 | 40,930 | 777,850 | 300,000 | 2,670,080 |
| 1841,..... | ..... | 36,440 | 1,015,194 | ..... | ..... |
| 1842,..... | ..... | ..... | 1,014,715 | ..... | 2,874,453 |
| 1843,..... | 4,000,000 | ..... | ..... | ..... | 3,290,728 |
| 1844,..... | 4,500,000 | ..... | ..... | ..... | ..... |
| 1845,..... | 4,960,077 | ..... | ..... | ..... | ..... |

Notwithstanding that Great Britain has the advantage of all other countries in the world, in having her coal, for the greater part, close to her sea-ports; yet her greatest European rival, in supplying the continental markets, is Belgium. The latter also has a competitor in Prussia, whose Rhenish provinces furnish extensive supplies to Germany and France. In both cases, the expenses of mining, or bringing the coal to bank, is fully as cheap as in England.

But if, as appears more than probable, from the report of M. Briavionne, the engineer-in-chief of the Belgian coal mines, all the coal which it is practicable to mine to advantage, in western Belgium, will be exhausted before twenty years, it is obvious that it cannot be the policy of that country to continue an exporting one, at least after a few years from this time.

We proceed to give a brief sketch of the separate coal districts which have been previously enumerated.

Basin of the Sambre or Hainault—in the western division, and in the provinces of Hainault and Namur. Within these provinces, and forming the *western coal division* of Belgium, are comprised three important coal basins, which are occasionally classed under the general denomination of the basin of the Sambre. These are:—

| | | | |
|---|---|---|---|
| District I. Prov. Hainault. | A. | The basin of the Levant of Mons, | Arrondissements |
| | " | Couchant " | Mons & Tournay. |
| | B. " | Charleroi, | arrondissem't of Charleroi. |

The coal basin of Hainault extends in that province 13 leagues in length, by a mean breadth of 2½ leagues, occupying 31½ square leagues. It is covered by 106 communes, and 154 concessions, occupying a surface of 83,293 hectares, (205,817 English acres,) the population of which, in 1806, was 133,963 souls, and on the 1st of January, 1841, was 211,717 persons, being an increase of 58 per cent. This is a population of 6,829 persons to every square league, and therefore is remarkable for its density.* In Namur, this coal district covers 16,643 hectares more.

* Rapport sur la situation du Hainault, 1842, p. 30.

In the province of Hainault, we meet with all varieties of coal, from the most meagre, called by some authors *anthracite*, to the fattest coals, proper for the fabrication of coke; including the flaming species, locally called *Flenu*, approaching to that of Newcastle in England, and sought after for its evaporative purposes.*

The annual amount of coal extracted from the basins of Hainault and Namur alone, exceeds the whole production of France.

We have shown the annual returns from the Hainault district, comprising the Mons and Charleroi basins, in a previous table. These show the progressive increase in the quantity of coals raised, from 2,345,374 tons in 1836, to 3,671,023 tons in 1845. The number of pits in activity and construction, increased from 274 in 1829, to 441 in 1838, employing 281 steam-engines, of an aggregate power of 11,211 horses, and 25,241 working miners. Coal raised in 1829, 1,761,118 tons; in 1845, 3,671,023 tons.

I. Mons District.—[A.]—Basins or sub-basins of the Levant, and Couchant of Mons, in the province of Hainault, arrondissements of Mons and Tournay. In 1840, these comprised 69 concessions, underlying 52,607 hectares, or 129,931 English acres. The local statistics of the mine are as follows:—Number of coal pits in activity and in construction, 87 in 1834, increasing annually, to 178 in 1838. Average depth of pits in 1838, 690 feet. Number of working miners, 16,896. Quantity of coal raised, in 1829, 1,361,965 tons, in 1839, 1,691,550 tons. The coals from the Mons District go to Brussels by the Charleroi canal. In 1843, 7,363 boats were loaded on the Canal de Condé, with 1,120,184 English tons; in 1844, 7,898 boats, viz., 5,172 boats, despatched for Paris and intermediate ports, 734,014 tons; 2,726 to Flanders, Antwerp, Brabant, &c., 503,916 tons, with 1,237,930 tons.†

In this district are 114 coal beds, among which the group *Flenu*, containing fifty-two seams, is the richest. In point both of quality and quantity, the most remarkable deposit of coal is almost entirely situated in the "*Couchant de Mons*," which here forms a band 6¼ miles deep.

The varieties of the coal of the Mons District, are sufficiently numerous and important to require classification, which is generally done under three distinct heads. These are:—

1st. The coal called *Flenu Coal*, from the locality in which it was first mined. This species burns rapidly, with much flame and smoke; does not produce a very intense heat, during combustion, and gives out, commonly, a disagreeable odor in burning. The coke produced from it is too friable to be advantageously employed in the foundries. Fracture fibrous, rhomboidal; sonorous almost as charcoal. Fifty-six seams of this coal occur near Mons. Mr. Dunn says that the quality of the Flenu coal is unlike anything in England, but is very similar to that of Swansea, in South Wales; viz., a species of conglomerate, without hardness, or without those facings which characterise the coking coal of England.

2d. *The Fat Coal*—Divides readily in small cubes; is more friable than the Flenu, gives less of flame and smoke, but produces a more intense heat. It is eminently proper for the forge, for the fabrication of coke, for the foundries, and for heating rooms, because it gives little or no smell, and burns slowly, swelling in the burning. This quality com-

* Rapport au Roi. Mines, Usines, Mineralurgiques, machines a vapeur, 1842.
† Commerce exterieur de la Belgique. Developement du Commerce Belgique.

prises two series of seams; the highest, called "glassy coal," contain twelve beds; the lower, comprising twenty-nine beds, called "large coals."

3d. *The Meagre, Lean, or Dry coal, and Anthracite*—has the same fracture as the fat coal; is still more friable, and does not coke in the fire, because it contains not sufficient bitumen, for which reason it will not make a good coke, and cannot be employed, except for gas-lighting. It is chiefly fit for the burning of bricks and lime. Not possessing any cementing quality, it does not obstruct the currents of air in the brick-kilns or lime-kilns, but burns very slowly, and gives out a regular equal heat. Thirty-four seams of this quality occur to the westward of Mons.

These three varieties of coal do not abruptly pass from one to the other; but merge insensibly into those gradations. The beds which are the type of the quality called *Flenu coal*, are the first in the order of superposition. They acquire the quality of *fat coal* as they approach the lower part of the basin; in the same degree as the fat coals pass to the quality of *thin or dry coals*, of which the type is in the last beds of the bottom.

It is on record that in the basin of Mons there are no less than one hundred and fourteen seams of coal, all workable. A transverse section of this vast series, occurring in the mines of the neighborhood of Grand Hornu, was republished by Mr. Dunn, in 1844.

An authority of a yet later date announces a still more discriminating arrangement than the foregoing. In the following statement is specified the several beds and qualities of coal in the Mons basin, in the order in which they successively occur, from the exterior to the centre of the basin.

13 beds of *Dry coal*, good for burning bricks and lime.

23 beds or seams of "*Charbon de fine forge*," quality not pyritous; yielding 65 to 68 per cent of good coke. These seams are not all workable, and, in quality, are considered inferior, for forge purposes, to the coal of Saint-Etienne in France.

29 beds of "*Hard coal;*" bituminous, caking, giving a fine coke; used in foundries and high furnaces, and contains very little pyrites.

49 seams of "*Flenu coal.*"—This has given a high reputation to the basin of Mons, and forms the greater part of its "*exploitations.*" It is a brilliant coal, not readily reduced to powder, eminently easy of ignition, burning with a long and bright flame. In a word, it is the coal, of all others, for steam-boilers.

114 beds in all; which, in general, vary from 18 inches, to 2 feet 9 inches in thickness; but some of them are upwards of 6 feet in thickness, and of much regularity.

The workings are carried on, in this basin, at a very great depth. Mr. Dunn examined some of them, in the Mons District, 180 fathoms, 1,080 feet, in depth, where they were working the *Upper or Flenu beds;* and, as these collieries were known to be situated very near to the top of the basin, it was computed that a sinking of 900 fathoms, 5,400 feet, would be required to command the lowest coal.

Various modes and experiments have been adopted in the Belgian coal fields, for the purposes of lighting and ventilation. These important objects form the subject of numerous memoirs, which have been, from time to time, addressed to the government by men of skill and science.

Air pumps have been employed in some of the deep mines for extract-

ing the impure air. The first air pump was erected in 1830, in the coal district of Mons.

At the mine, "Sacre Madame," a pair of air pumps are worked by a ten horse power engine, each cylinder being six feet nine inches in diameter, exhausting 5,120 cubic feet per minute.

The most powerful air pump is that of L'Esperance, near to Seraing, which extracts 282 cubic feet of air per second, = 16,920 feet per minute.*

Mr. Dunn, an excellent modern authority, states, that in the neighborhood of Jemappe, the pits are worked at 347 metres, or 1,140 feet in depth. The Grand Hornu colliery, in the Mons district, which has been illustrated by the published section of its immense system of coal beds, is 990 feet deep.†

In the Produit mine, the twenty-nine upper seams are worked by one company, and the twenty-two seams below the first group belong to and are worked by another company. Sixty-nine other coal beds yet lie beneath the latter series, but have not yet been reached. To work the lowest of these, would, it is computed by M. Von Dechen, require a sinking to the depth of *five thousand four hundred feet*, at least, or, by the estimate of the Belgian engineers, to *six thousand feet* below the surface.

This portion of the coal field possesses great geological interest. It is covered by the chalk formation, of from fifteen to sixty yards in thickness.

In one of the shafts of the colliery of Grand Hornu, they have penetrated through 210 feet of overlying chalk, the lower twenty feet of which contain layers of flints. Between these and the ordinary coal measures, there appears to be only a bed of four or five feet of blue shale or clay. In many cases, this overlying chalk has been proved of the thickness of 400 feet, particularly in the French portion of the coal basin.

By direction of the government, the descent to and ascent from the coal mines is effected by separate shafts, in which ladders, often quite perpendicular, are placed for the use of every person employed in the workings. The fatigue and waste of human strength, in this laborious process, can scarcely be appreciated except by those who are practically conversant with the matter. The workmen are forbidden to descend in the *cuffats* or tubs which are used for the conveyance of the coals to the surface.

Some improvements for the convenience and safety of the Belgian miners have been latterly introduced. In 1845, a committee of French mining engineers visited Belgium for the purpose of examining a new machine for ascending and descending coal pits.

In 1844, according to the report of M. Briavionne, the coal mines of this district had been worked out to the mean depth of 810 feet.

Basin of Charleroi.—*Western or Hainault District, I.* [*B.*]—Properly speaking, this coal district is a prolongation of that of Mons, just described, which here attains its greatest breadth; being, at Charleroi, ten miles and a half from north to south, and twelve miles and a quarter in length. The population of Charleroi is chiefly occupied in working the coal mines of the district, and in the iron foundries and glass works.

In 1840, there were of fixed and provisional concessions 85, comprising 30,686 hectares, or 75,886 English acres.

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* Dunn's View of the Coal Trade, 1844, p. 179.

† This part of the coal field is interrupted by an extraordinary series of doublings and zig-zags, which pervade all the seams, and which Mr. Dunn likens to the course of lightning.

The number of pits, in operation and in construction, were 96 in 1834, and 263 in 1838; their average depth, in 1838, was 300 feet. Number of working miners, 8,345.

Quantity of coal raised in 1829, 399,153 tons; in 1838, 724,360 tons; in 1839, 838,551 tons; in 1845, 1,453,946 tons. Three-sixths of this coal was of good quality, two-sixths middling, and the remaining sixth part inferior, called "houille maigre."

The facilities furnished by the coal of this district to manufactures, have given, latterly, a great impulse to that description of industry. At Charleroi, 4,000 mechanics, in 1836, and 6,000, in 1842, were employed in the manufacture of nails alone, besides several thousand workmen engaged in making the iron.

The coals from the Charleroi mines supply the great centres of industry—the blast-furnaces, the glass-houses, the refineries, &c., and a great portion of them go into Brabant, and down the Sambre and the Meuse. There is now, also, a railroad, for the conveyance of the coal from Charleroi to Brussels.

The Charleroi coal obtains a higher price at the pit's mouth, than that of Mons, as shown in the following statement:—

MONS COAL.

| Years. | Price per ton. | | | | |
|---|---|---|---|---|---|
| 1836,..... | 7 to 8f. | | $1.50 | | |
| 1837,..... | 12 | 14 | 2.50 | | |
| 1838,.....best, | ... | ... | 4.50 | | or from 16s. 4d. to 19 10 |

CHARLEROI COAL.

| Years. | Price per ton. | | | | |
|---|---|---|---|---|---|
| 1836,..... | 13 to 14f. | | $2.47 to 2.66 | | |
| 1837,..... | 18 | 19 | 3.50 | 3.75 | |
| 1838,.....best, | ... | ... | 4.06 | 4.96 | or from 16s. 9d. to 20 6 |
| 1844,..... do. | ... | ... | 2.50 | 3.67 | 10 6 15 4 |

We have not quoted the prices of the middling and inferior qualities, but they are, in general, only from two-thirds down to one-third of the above prices. It is impossible to be exact, as great discrepancies appear in the returns, and, moreover, great attention is required in designating the peculiar quality of coal quoted, from among such a variety of gradations.

It was in consequence of the great advance in the price, and the constantly increasing demand for coal in manufactures, that the Belgian government, acceding to the wishes of the people, admitted the English coal free of duty. We see that a precisely similar series of circumstances led, almost simultaneously, both the Belgian and the French governments to countenance the introduction of English coal, to the great advantage of the manufacturers of the first named countries.

Since 1826, fifty-eight large high furnaces, employing coke alone, have been constructed in Belgium. Their average production is about 3,000 tons per annum of cast iron, each. According to M. Drouot, the average cost of constructing each of these high furnaces, as well as the establishment of the kilns for the necessary fabrication of the coke, was 500,000 francs, = £19,312 sterling, or $93,470.*

* M. Drouot, on the construction of the high coke furnaces at Maubeuge. Annales des Mines, Tome iv., p. 283. 1844.

The principal employment of the coal of the Charleroi district is in the state of coke, in these high furnaces.

At Charleroi, the different qualities of coal are distinguished by the three following names or divisions :—

I. Fat Coal—*Gras*. II. Medium Coal—*Demi-gras*. III. Lean Coal—*Maigre*.

Each of these qualities is sub-divided into classes, viz :—

*Gros*—Pieces selected at the mine ; picked large coal. *Toute-venant*—The remainder, after selection of the *gros*. *Gaillette*—A size smaller than the *gros*, but which must not be less than six inches square. *Gaillette*rie—The coal which remains after deducting the *gaillette* and the *menu*, passing through a sifter of an inch and a quarter openings. *Menu*—The coal which is passed through a *crible*, or sieve, whose meshes are an inch and a quarter wide.

There are as many prices in the market, as correspond with these fifteen sub-divisions of quality.

II. Province of Namur.—In this province, between the communes of Thon and Samson, is the point of division between the two great coal basins of Belgium. The eastern basin, or division, as has been previously indicated, is prolonged into the province of Liege, and even into Prussia. The western basin, after having traversed the province of Namur, following the valley of the Sambre, continues across the arrondissements of Charleroi and Mons, and passes into France, as before described.

The province of Namur contains portions of each of these two basins. That part which is within the limits of the eastern basin, is only about two leagues in length ; and its area, up to the boundary of the province of Liege, is estimated to contain about 2,317 hectares, or 5,725 English acres. The area which falls within the western basin, in this province, is about six leagues in length, with a superficial extent of 14,326 hectares, or 35,400 English acres. These two coal areas, therefore, which lie within the province of Namur, comprise, together, 16,643 hectares, or 41,125 acres.

NUMBER OF CONCESSIONS, FIXED AND CONDITIONAL.

| Years. | Concessions. | Pits in activity. | Pits in construct'n. | Hectares. | Production in tons. |
|---|---|---|---|---|---|
| 1822,..... | 4 | 62 | ... | ..... | ..... |
| 1828,..... | 37 | 56 | ... | ..... | ..... |
| 1836,..... | 37 | 46 | 23 | ..... | 79,174 |
| 1838,..... | 37 | 57 | 33 | 10,516 | 103,954 |
| 1840,..... | 38 | ... | ... | 11,887 | ..... |
| 1845,..... | ... | ... | ... | ..... | 161,873 |

| | | 1838. | 1838. |
|---|---|---|---|
| Maximum depth of the working pits,..... | English feet | 344 | 984 |
| Minimum depth,..... | " | 35 | 32 |
| Mean of all the pits,..... | " | 98 | 147 |

It is observable that, whilst the production of these mines has, during twenty years, been regularly increasing, the number of the shafts, serving for extraction, has diminished. This apparent anomaly is explained, by the progress of the arts of mining ; which, while reducing the number of the pits, yet enables a greater quantity of the combustible to be raised.*

The coals mined in this province are consumed, almost entirely, by the inhabitants. A small portion is exported to France by the Meuse.

* Rapport au Roi. 1842.

Through the facilities afforded by a ready supply of coal at Namur, the manufacturing of cutlery there, gives constant employment to 5,000 workmen. Namur has been styled the Sheffield of Belgium.

III. Province of Liege.—*The Eastern Division, or Basin of the Meuse.*—This coal field extends through this province thirty-three miles; its maximum breadth is opposite to Liege, where it is nine miles wide.

Before the treaty of peace, in 1831, Belgium possessed several mines of coal upon the right bank of the Meuse, in the province of Limburg; but these collieries formed part of the territory ceded.

STATISTICS OF THE EASTERN COAL FIELD, IN 1838.

| | Left bank of the Meuse. | Right bank of the Meuse. | Total. |
|---|---|---|---|
| Mines, or concessions, definite and provisional,..... | 60 | 55 | 115 |
| Definitely conceded,..... | 33 | 35 | 115 |
| Provisionally appropriated,..... | 27 | 20 | |
| Pits in activity and in construction,..... | 64 | 57 | 115 |
| Working miners,..... | 6,273 | 4,375 | 10,646 |
| Area of concessions,.....hectares | ..... | ..... | 28,885 |
| " " .....acres | ..... | ..... | 70,631 |
| Coal extracted, 1838,.....tons | ..... | ..... | 740,408 |
| Value of the coal,.....francs | ..... | ..... | 10,315,082 |
| Coal extracted in 1845,.....tons | ..... | ..... | 1,127,181 |
| Geological area of the coal basin,.....hectares | ..... | ..... | 41,745 |
| " " .....acres | ..... | ..... | 103,151 |

The coal seams are exceedingly numerous, although less so than other parts of the Belgian coal fields. Sixty-one beds occur on the mountain of Saint Giles. On the subject of quality, it has been remarked that, although there is no position in this remarkable series where the best coal prevails, yet, in relation to individual coal seams, as in almost all mines, it is seen that the middle part, and the bottom of the veins, are always the places of the best coal, and that the upper part of the beds is almost constantly the poorest.

The number of pits at work in this district, in 1828, was 100; in 1835, 87; in 1838, 115; and in 1841, 138; at the present time they are yet more numerous. The mines, just without the gate of the city of Liege, towards Brussels, are about 720 feet deep. The deepest coal pit, that of L'Esperance, at Seraing, in this province, is 1,476 feet deep.

There is a generally received opinion respecting the quality of the Belgian coal, that the deeper it is pursued the more bituminous it becomes. M. Genneté states, that the greater or less thickness of stony or slaty strata, interposing between the coal seams, has no influence upon the coal itself. There is no relation or affinity with the different depths, in the series from whence they are taken. Thus, in the lowest veins, as well as in those in the middle, and those nearest the surface, are found the equal gradations of very good, of middling, and of bad coals.

One of the heaviest charges on coal, in Belgium, is the scarcity, and consequent high price of the timber required to support the mine workings. Notwithstanding the abundance of coal in this field, it is expensive, as the cost of raising it has been as high as ten francs per ton.

The produce of the Liege coal field is mostly consumed in the district. The surplus is conveyed to France and Holland—hitherto, almost entirely by the navigation of the Meuse; but since 1836, railroads have been introduced, and are connected with several collieries.

By the official reports, it is shown, that the interior consumption, owing

have been acquired since about ten years, by anonymous societies. The relative position of the old and the new establishments, in 1834, was as follows:—

| | | | | |
|---|---|---|---|---|
| The 83 new companies produced in 1834, | 899,871 | tons of coal from | 92 | working pits. |
| The 224 old establishments " | 1,543,697 | " " | 249 | " |
| Total in the kingdom,..... | 2,443,568 | | | |
| The 83 new companies produced in 1838, | 1,285,427 | tons of coal from | 271 | working pits. |
| The 224 old societies " | 1,974,844 | " " | 389 | " |
| Total in the kingdom,..... | 3,260,271 | | 660 | |

The increase in the number of mines, or sites of extraction, during these last years, or from 1834 to 1838, is much more perceptible among the new series than in the old establishments. While the latter have increased at the rate of 56 per cent, the former advanced their points of production at the rate of 194 per cent.

The influence of capital is also seen in regard to production. While the old associations increased at the rate of 24 per cent, the anonymous societies advanced their production, in the same term of years, 42 per cent.* We have no means of pursuing the parallel to a later period.

M. Desmaisières, minister of public works, the author of the Report from which we have so freely quoted, thus concludes this branch of his subject: "Since 1838, to a state of fictitious prosperity has succeeded a crisis but too real. The nation has expended in vain, in behalf of mineral and metallurgic industry, resources which might have been better employed; but whatever evils may have befallen the adventurers, they have had the effect of benefiting the consumers.

"In order to form an accurate judgment respecting the operations of the past years, we must await the results of an ulterior experience. We have desired only to prove and exhibit a great characteristic fact, and to deduce from it the approaching consequences.

"Belgium will always find in the industrious and persevering spirit of her population; in her habits of economy; in the riches of her soil; in the improvement of her means of communication, already so numerous, the elements of success and prosperity. The confidence which we have in the future, must not make us conceal the imprudences which have been previously committed. The situation of things, as revealed by the details of this report, can only be that of a people advanced in industry. We are now enabled to develop our forces and our resources: the future is for the workers."

M. A. Visschers, writing at a later period, expresses corresponding opinions, and considers that it is not so much the facilities of production that are necessary to Belgium, as outlets for her coal and iron. For those who, in preceding years, had favored the false movement of accelerated production without an adequate market, it seems as if they had entertained but one care—that of realizing the finest industrial schemes: they troubled themselves very little about the future.

"An *industriel* of this epoque naively communicated to us his projects. When we asked what he would do in the event of his obtaining no sale for his coal, 'We will construct,' said he, 'high furnaces.' 'But if you

* Rapport du Roi. Statistique de la Belgique, XLVII.

could not sell your pig iron?' 'We will fabricate the iron; we will erect workshops for construction.'

"It was the skilful mechanicians who held this language; not the true economists. The greatest, the most ingenious of these, Mr. J. Cockerill, is an example. There was no enterprise originated in which he did not conceive himself competent to bear a part. In the last years of his life, he showed us the list of the industrial establishments with which he was connected. This list numbered seventy-two undertakings, all created upon the grandest scale. This man, to whose memory his workmen desire to erect a statue, has perished, like all men of genius, by the abuse of his principle."

To the sounder views of the present producers Mr. Visschers renders due homage. "They have placed, at length, the question of production upon its true basis; they endeavor to lower their costs; they limit themselves to solicit, from the government, improvements in the interior channels of communication, and its assistance in negotiating treaties of commerce with neighboring people. These are the certain pledges of success for the future. The market, now-a-days, belongs to those who work the best and the cheapest; outlets (debouches) increase by the creation of new avenues for transportation, particularly the railroads; international relations are ameliorated; barriers are lowered before the reciprocity of interests.

"With the resources which the soil of Belgium presents, we ought not to despair of making up for the losses of the past. We have drawn, from the history of preceding years, a confirmation of this principle in political economy—that labor is the sole source of wealth. To the efforts of the intelligent, then, we look for repairing the evils which imprudence has occasioned."*

The spirit of mining enterprise is again in great and successful activity in Belgium, arising from the great demand for coal and iron, from the neighboring countries. Among others, a French company, called the "Société des Charbonnages Belges," headed by Baron Rothschild, in 1846 obtained a royal ordinance, creating it a *Société anonyme*. The objects of the company are, the acquisition of coal pits, mines, railroads, and iron-furnaces in Belgium; the charter to exist for ninety-nine years, with a capital of fifteen millions of francs. It is calculated that it will exercise great influence on the coal trade, by increasing its supplies, and finding it new markets,—particularly in France, through the means of the Great Northern Railroad, which is in the hands of the same parties.†

Concessions, fixed and provisionary—"Attribuée provisoirement."—The ancient custom in Belgium, as explained in the "Statistical Bulletin" of 1843, was to limit the number of coal seams (to be worked) in the leases. Different lettings took place within the same area; each company, in turn, being empowered to sink through the others' concessions, in order to reach its own. This state of things has always occasioned great inconvenience and confusion. The government desires to remedy this evil; but it cannot do so effectually, so long as the existing leases are in force and unexpired.

* De l'etat actuel de l'exploitation minerale et de l'industrie metallurgique en Belgique.

† Paris correspondent of the Mining Journal, May 23, 1846.

Royalty Rents.—The law of the 24th of April, 1810, fixed the principle as follows:—1st. A *fixed*, or *sleeping rent*, in proportion to the extent of coal leased, or promised to be leased, and is regulated accordingly, from time to time. 2nd. A *proportional rent* (redevance) is fixed annually by government, which rent is levied, not exceeding 5 per cent, upon the nett produce of the mine. The mode of taking such amount is regulated by an imperial decree of the 6th of May, 1811.

Subsequently to the year 1823, the *tonnage rent* has been fixed at 2½ per cent, upon the nett produce of the mines.

Since 1834, there has been comprised in this amount, the sum which is annually paid by the Society of the *Vielle Montagne*, amounting to 7,500 francs.*

The following is a condensed statement of the periodical amount of these rents:—

| Years. | Fixed Rents. | Proportional Rents. |
|---|---|---|
| 1823..... | 14,244 francs. | 99,919 francs. |
| 1830..... | 17,986 " | 96,148 " |
| 1835..... | 16,701 " | 51,678 " |
| 1838..... | 15,761 " | 170,571 " |
| 1840..... | 15,910 " | 141,040 " |

Previously to this epoch, the laws, enacted in 1816 and 1819, had established an excise impost (droit d'accise) upon coal. The suppression of this tax was regarded as a benefit by the explorers of mines.

Prepared Fuel.—In Flanders, and in several parts of Germany, particularly in the Duchies of Juliers and Bergens, where coals are in use as fuel, they are commonly prepared by pounding the pieces to powder, and mixing them up with an equal quantity of clay. The mass is kneaded together into cakes, which, after being well dried, are kept dry for use. Precisely the same process is now adopted in South Wales, where it has been in use from time immemorial, as it also has been similarly employed in China.

It has been found by long experience, that the expense attending this preparation is amply repaid by the improvement of the fuel. The pulverized coals, thus mixed with clay, not only burn longer, but give much more heat, than when they are burned in their crude state.

It will doubtless appear extraordinary to those who have not considered the subject with some attention, that the quantity of heat, produced in the combustion of any given quantity of coal, should be increased by mixing those coals with clay, mud, or ooze, which are obviously incombustible bodies, but the fact is certain.†

Peat.—This vegetable substance is of great value as a cheap fuel for the poorer classes, and abounds throughout the country, particularly in those parts of it which are most remote from coal. However, in this instance, Belgium, which is so productive in the mineral combustible, is less bountifully supplied with peat, its substitute, than is her neighbor, Holland, which possesses no coal mines. Thus have the gifts of nature been impartially distributed; for it is a fortunate provision of Providence that those northern and temperate regions to which coal has, in many instances, been denied, seem best fitted for the production of those aquatic plants which

* Rapport au Roi. Mines, Usines mineralurgiques, machines a vapeur, 1842—p. 431–3.

† Gray's Operative Chemist.

contribute to form turf or peat; and as fuel in those regions is indispensable to man—is one of the first necessaries of his life—the absence of mineral coal is, in a great measure, compensated for, by the abundant and reproductive supply of a vegetable fuel whose useful and multifarious properties are every day becoming more apparent.

We may be permitted to add here, that animal remains, possessing considerable interest, are occasionally extracted from the Turbaries of Belgium. A jaw of a dog was found not long ago, at the depth of ten feet, which M. Puel, to whom this relic was committed for examination, recognized as belonging to the variety known as the Esquimaux dog.*

Canals of Belgium.—The total length of navigation, by the twenty-two finished canals, is 286 English miles; and other lines are in progress. All these are, for the most part, supported by the transportation of coal and iron. The tolls upon them are reasonable; the works are carefully maintained, and, consequently, they yield great service to the country.

Navigable Rivers, in 1846—598 miles. Hence there is a total extent of inland navigation of 884 English miles.

Railroads.—Nothing has had so beneficial an effect on the Belgian coal trade as the establishment of railroads, during the last ten years. In fact, "Belgium is the first State in Europe in which a general system of railways has been planned and executed by the government, at the public cost; and, certainly, it is an honorable distinction to have given the first example of such a national and systematic provision of the means of rapid communication."†

The number of railroads now in progress and projected, added to those already in operation, is really extraordinary. No country in the world, in proportion to its extent, will possess so many miles of railway as Belgium. All this result is owing to the prevalence of those vast depositories of coal and iron within her boundaries.

In 1842, there were in operation, in this kingdom, 282 miles of railway; the average cost of constructing which was £12,120 sterling, or $58,660 per mile; which is less than half the average cost of railways in England, and more than double the cost per mile of the completed railroads of the United States. On the 1st of January, 1846, there had been constructed, in this country, seven railways, whose aggregate length was 386⅓ English miles, at a cost of £5,789,872 sterling, or $28,022,980—averaging £16,600, or $80,344 per mile.

In Great Britain, the average cost of 1,900 miles of railroad, up to 1846, was £34,710, or $168,000, while the 4,865 miles completed in the United States, (many of them single tracks only,) cost £5,564, or $26,932 per mile.

Steam-Engines.—The first pump, worked by means of fire, was established at Liege, about the year 1723. In the arrondissement of Charleroi this system was introduced in 1725—an epoch distinguished by the establishment, at Lodelinsart, of the first steam-engine, by a Liégeois, named Matheu Misonne. In the district of Mons the first steam-engine was erected about the year 1734.

The first machine, for the double purpose of drainage and the extraction of coal, was erected in the province of Liege, in 1810, at the colliery of

* Bulletin de la Societe Geologique de France. Tome X., p. 118–126.
† McCulloch's Belgium.

Plomterie; but in the province of Hainault, engines of this description have been in activity since 1807.*

In France, the first steam-engine, employed for draining a coal mine, was erected in 1749, at Litry; and it was in the same mine, in the year 1810, that they employed, for the first time, steam-power to raise the coal.

The number of steam-engines employed in the Belgian collieries, in 1839, was—

| | Engines. | | Horse Power. |
|---|---|---|---|
| In extraction or raising the coal,..... | 266 | of | 6,846 |
| In draining and pumping the mines,..... | 102 | " | 8,636 |
| In the purposes of ventilation,..... | 8 | " | 122 |
| | 376 | | 15,604 |
| The total number of steam-engines, in all Belgium, engaged in mining, manufacturing, and navigation,..... | 1,049 | | 26,056½ |
| Or, including the 122 locomotives of 6,053 horse power, on the State Railroad,..... | 1,171 | | 32,109½ |

Since this return, the numbers have greatly increased.

## Art. III.—LEGISLATIVE POLICY OF MAINE:

### WITH REFERENCE TO THE SUBJECT OF CORPORATIONS.

It is a prominent characteristic of a republican people, to be distrustful of associated power, where it wears any feature of exclusiveness. Experience proves, that this is not the result of the promptings of patriotic principle in the abstract—teaching that "power is always stealing from the many to the few,"—but is nearer akin to the natural selfishness and cupidity of the human heart all over the world; for few men, indeed, decline the opportunity of concentrating in their own hands, the power of both privilege and wealth, notwithstanding their extreme jealousy of it in the hands of others.† The difference between *meum* and *tuum*, is the most ancient of discoveries; and always has been, since the origin of language among men, and always will be, until the millennium shall dawn, held good between nations, communities, and even individuals of the same domestic circle. It is not wisdom to attempt a suppression of this distinc-

* Bulletin de Commission Statistique. Royaume de Belgique, 1843.

† Bourrienne, in his Memoirs of Napoleon, furnishes a notable illustration of this truth. He says of Bonaparte:—

"His great actions—his brilliant enterprises, always crowned with success—his devotion to France—the justness of his conceptions—all concurred to point him out as the man most capable of making the country of his adoption great and happy, and of establishing public liberty. Bonaparte was deficient neither in devoted views, in knowledge, nor in the necessary acquirements; but the will alone was wanting. For who, in fact, could have supposed that, having obtained the supreme power, he would have availed himself of it to trample under foot all the principles he had so long professed, and to which he owed his elevation? Who could have believed, that he would have superseded, by the most absolute despotism, that constitutional liberty, for which France had so long sighed, and for the peaceable enjoyment of which she had made so many sacrifices? But so it is: when his ambition had been gratified—when he had sacrificed every thing to gain his point—*we see him re-establishing the principles which he had combated, and defending them with equal energy.*"

tion—to blot out the ambitious impulses to which it gives birth; simply, because, however universal might be the repose of human passions that would follow, if accomplished, the thing is utopian in conception and utterly impracticable. As a theory to gaze at, through the mind's eye, for amusement, as boys delight in the illusions of the magic lantern, it may not be without its usefulness. But sterner admonitions summon the master spirits of the business world to a different study—to contemplate men, things, and the thousand relations of life as they really are, and not as they might be presumptuously preferred by visionary enthusiasts; and, with a clear vision, to regulate, detect, and combine them, so as to promote the greatest amount of individual and personal happiness, wealth, and power, consistently with the common welfare and common rights and privileges of the entire associated community. It is folly to teach men to do this labor with a view of making the general welfare the first, and their individual interests the second point, in the series of their ambitious efforts. The man who pretends it, stands accused of falsehood in his own nature; and if any sincerely believe, themselves, in such pretensions, they are victims of a credulity that exposes them to the impositions of the crafty, and the pity of all sensible observers.

All republican governments are founded in this selfishness of the individual, as contrasted with a preference for the mass. It is an error that supposes republics proceed from the liberality of mankind. Exactly the reverse is true. They are the offsprings of individual selfishness, acting upon a large scale, and risen to strength equal to its own protection against the same principle exerted by a few. It is the highest virtue of republican governments, in fact, their esteemed superiority over all other forms, that they exact so little sacrifice—so small surrender of individual liberty, rights, and privileges, to the welfare and protection of the people. The converse of this, is the measure of advantage secured thereby to each individual—to the many. It is the amount of protection yielded to the principle of selfishness, that is inherent to man. Under all other forms of government, the paramount characteristic is, the sacrifice of the rights and privileges of the many to the advantage of the few, and is seen, also, in the great disparity of the loss and gain which the many thereby suffer and enjoy from their government. The perfect popular government, therefore, only touches to direct, or regulate, the fewest possible number of individual interests, but it leaves all others to the control of individuals themselves. Yet individuals, severally, being too weak in means to accomplish large enterprises, need to invoke the creation, by the government of the people, of what are called corporate laws, by which many persons, and the means of many, are associated as one individual, and made a corporation. It is through this device, that a government may encourage the grandest results of art, science, and industry, without entrenching at all upon the common stock of reserved liberty, working out thereby the incidental advancement of the whole people, and without involving its own means or accountability to any extent, or exacting any contribution of means from any citizen who does not elect to make it, and is not induced to make it with special reference to his own personal benefit, viewed as paramount to that of all others, the "dear public," included. Nor is it liberal in any government to withhold these privileges of association, wherever it is not clear that a direct advantage is to result therefrom to the government, or to grant them only on the condition of receiving to it-

self some such direct advantage. Such a condition involves the injustice of taking private industry for public uses, without an equivalent taken from the public. A grant that takes nothing from the public stock—that involves no monopoly, or exclusive privileges, should not have a price set upon it at the expense of those who furnish the needful enterprise to improve it. But, wherever a case establishes, as the resulting consequences of an act of incorporation granted to individuals, the probable advancement of those individuals in wealth and happiness, and in incidental usefulness to the community where their scene of action is chosen, there it is but the part of wisdom, of sound policy, and productive liberality, in the government, to grant the act. And it is now a matter of history, that just in the ratio of an observance of this course, by any State government of the Union, towards individual enterprise and means exerted through corporate powers conferred for the purpose, the whole people of that government have prospered, and advanced in wealth, strength, and influence. Witness what the old Bay State government has accomplished, in this way, for her citizens. Perhaps, in the wide world, there is not another people among whom is so generally diffused education and wealth, or the elements of profitable industry and comfortable subsistence, within every man's easy attainment. And it is there, where legally incorporated means have been more largely resorted to, because more liberally encouraged, than in any other State. And what a contrast—a mortifying contrast to many, in this respect—does the history of her offspring, Maine, exhibit, from the day of the latter's majority, or recognition as an independent State, until very recently! And who can calculate the amount of retardation, which population, enterprise, wealth, and the resulting influences of all these elements, have suffered in the meantime, in Maine, from this short-sighted jealousy of incorporated means and privileges?

With three hundred miles, indented at all points by convenient, safe, and accessible harbors—with rivers and streams everywhere inviting improvement, and furnishing exhaustless motive powers, of every magnitude, for mechanical and manufacturing purposes—with quarries of granite and marble, or limestone, for both useful and ornamental architecture of every conceivable order, and in quantities to defy the uses of the entire continent—with forests of timber trees of every necessary kind, or useful purpose, in no less abundance—with mines of various ores, and soil, fertile for both grazing and tillage as rational industry need covet, and a climate healthy as any on earth—what, but the want of a liberal and fostering policy on the part of the State government, during the last twenty years, has kept energies so mighty from being improved, multiplied, and extended? The State has been drugged with narcotics, until its sensibilities became hardened against the poisonous influence, and roused itself under the promptings of self-condemnation and shame. Even now, her progress is slow, but quickening, and will not, it is fondly hoped, again be stayed. The contrast between her past and present policy, towards the associated enterprise of her citizens, is cheering and creditable. While the encouraging aspect of some industrial pursuits of her citizens, at this time, reflects the highest praise upon her more liberalized State policy towards them, it casts backward the sternest rebuke upon what that policy has been in other years, and what it still is, in respect to some. For example, on the subject of taxing manufacturing interests during their infancy, her policy has been unsteady and jealous. The first decided act of encourage-

ment held out to manufacturers of cotton, wool, iron, and steel, in the State, was in the provisions of a law, passed February 7, 1825, which were to exempt from taxation the shares, property, or stock, real and personal, of such manufacturers as should thereafter be incorporated, for a period of six years from the date of their charters; and exempting all such previously incorporated property—that is, for the manufacturing of wool, cotton, iron, and steel, for a term of five years from the date of this exemption act. Yet a condition was annexed, that not less than $30,000 should be so employed, by the company seeking the exemption.

But in 1831, this legislative encouragement was withdrawn so far, as to subject the real estate of all such corporations as should thereafter be created, to taxation, at the appraised value of it at the time of its purchase, and not higher, for a period of six years from and after the date of the act of incorporation.

In 1834, the legislature relaxed, by special act, the policy of the act of 1831, so far as to exempt one particular company, the "Portland Manufacturing Company," from taxation, for a term of three years, and extended to it the provisions of the act of 1825.

In 1836, however, the anti-corporation spirit had obtained such a new vigor and ascendancy, in the politics of the State, as to effect an absolute repeal of the entire act of 1825, in respect to all subsequent corporations.

In 1840, on a general revision of the laws of the State, under the same dominant party influence, the provisions of the act of 1831 were also repealed, and no corresponding re-enactment substituted. Nor has its like been subsequently renewed. Yet one would hardly suppose the State to be beyond the desire of multiplying these sources of industry and wealth within her borders, or that a sound policy could fail to add largely to their encouragement. It is, however, true, that in the tax act of the State, "the machinery in cotton and woollen manufactures," except "carding machines, used for the purpose of carding rolls from sheeps' wool," have been usually exempted from taxation.

Upon the question of rendering individual stockholders liable for the debts of their corporations, the legislative policy of the State has been equally vacillating and discouraging. Yet now, the popular inclination is believed to have reached a more just and liberal comprehension on the subject.

By the act of the first legislature of the State, March 15, 1821, if an execution, recovered against any manufacturing corporation, were not paid, after demand made upon the president, treasurer, or clerk, before the return-day of the execution, or sufficient personal estate shown, belonging to the corporation, to satisfy the debt, *the body*, and the real and personal property of each member of the corporation was subject to be levied upon, to satisfy the new execution, (*capias satisfaciendum*,) as also that of each person who was a member at the time the debt was contracted. This was a transcript of the provisions of the old law of Massachusetts, in 1809.

The stringency of such a law being obviously injurious upon the interests of the State, by discouraging individuals from becoming stockholders in such corporations, the legislature, in 1823, exempted corporators from this individual liability after August of that year, *provided* their corporation published yearly a statement of the assessments voted and paid in, and made no divisions of their capital stock, or any part of it, or of any other property or debts belonging to it, except nett profits, until all the debts of

the corporation had been paid; *and provided, also,* that the agent or director of the corporation should deliver to any officer having an execution against it, a schedule of all the property of the corporation, including debts; and for want of other property, should transfer to the creditor enough of such debts to satisfy the execution. But, in case these provisions were not strictly complied with, the personal responsibility created by the act of 1821, continued.

This was one step towards a judicious modification of the general policy of the State. Another was taken in the act of February 12, 1828, which repealed the above proviso, so far as it provided "that the members of such corporation shall in any event be personally liable for the debts of such corporation." The last named act also imposed a penalty of "not exceeding two thousand dollars, or imprisonment for a term not exceeding twelve months," on any director, or other officer, or member of such corporation, who should "be convicted of voting or aiding" in dividing "the capital stock, or any part thereof, or any other property, or debts belonging to such corporation, until all the debts due therefrom shall have been paid; saving, however, the right to make dividends of the nett profits arising from the capital stock." And all sums received by any member, from such a division, were made liable to be recovered back by any creditor of the corporation.

But the anti-corporation policy of 1836, which, as we have already seen, revived the system of unrestrained taxation against infant manufactories, also struck at their increase, by reviving the liability of the individual property of members for corporation debts, thus:—

"In all corporations *hereafter* created by the legislature, except banking corporations, unless otherwise specially provided for in the act of incorporation, the shares of individual stockholders shall be liable for the debts of the corporation."

The same act also provided, that in case of a deficiency of attachable corporate property, the individual property of the corporators is made liable for all debts of the corporation, contracted prior to the corporator's transfer of his stock; and also for a period of one year after the "record of the transfer in the books of the corporation, and for the term of six months after judgment recovered against the corporation in any suit commenced within the year aforesaid, and the same may be taken in execution on said judgment, in the same manner as if" it were against him individually; but the amount of this liability of the individual stockholder was not to exceed the amount of his stock. The corporator could avoid this liability only by showing corporate property sufficient to satisfy the debt. The body of the corporator, however, was not exposed anew, as it had been under the law of 1821, to arrest and imprisonment for corporation debts.

The legislature of 1839, (act of March 21, 1839,) took another stride in the same direction, and subjected to the provisions of the act of 1836, the members of all corporations, (excepting for banking, literary and benevolent purposes,) that had been created since March 17, 1831, as it regards debts thereafter contracted. The act of 1836, it will be observed, was limited to corporations created only after its date.

On a general revision of the Statutes of the State in 1840, the provisions of 1836 and 1839 were adopted, only so far modified as to further limit the

stockholder's liability, in his private property, to such corporation debts as should be "contracted during his ownership of such stock."

But on the following year, (act of April 16, 1841,) the legislature again repealed this individual liability for corporate debts, on condition that the treasurer of the corporation published a statement under oath annually, of the capital paid in, and debts due from the company, and provided the corporate debts do not exceed 50 per cent of the capital paid in. It was a Whig legislature that now had the ascendancy. But in 1843, (act of March, 22, 1843,) the act of 1841 was absolutely repealed; and this repeal of the repealing statute operated to revive, and bring again into force, the individual liability provisions of the act of 1840.*

In 1844, yet another turn was given to this unsteady policy of the State. The act of March 21, 1844, provides that the treasurer of every manufacturing corporation shall publish, semi-annually, in January and July, a statement, under oath, of the amount—

1st. Of all assessments voted by the company, and actually paid in.

2d. The nett amount of the then existing capital stock.

3d. The amount of all debts due from the company.

4th. The amount of capital stock invested in real estate, buildings, machinery, and other fixtures.

5th. The last estimated value affixed to the real estate of such corporation, by the assessors of the city or town in which the same is located, and the aggregate value fixed to all the taxable property of such corporation, by such assessors.

It further prohibits the corporation from contracting debts, exceeding at any time the amount of the capital invested in real estate, &c., or exceeding one-half of the amount of capital paid in, and remaining undivided. By complying with these, among other, requirements, the corporators are relieved from all individual liability for the debts of the corporation; but in case the debts of the corporation exceed the limitations specified, the stockholders at once become liable for *all* the debts of their respective companies.

For the two succeeding years the laws of the State have reposed *in statu quo*, on this subject. But, under a general provision of the act of 1821, all manufacturing corporations were subject to such alterations, or to an entire repeal, as the legislature might determine. And, by the legislature of 1831, all acts of incorporation granted thereafter by the State, were made "liable to be amended, altered, or repealed, at the pleasure of the legislature, in the same manner as if an express provision to that effect were therein contained, unless there shall have been inserted in such act of incorporation, an express limitation or provision to the contrary." And such still continues to be the law of the State.

This review of the vacillating legislation of the State, by which alternate encouragements and discouragements have been held out to corporate bodies, will account largely for the immense disparity that still exists in the State, between the facilities for the multiplication and prosperity of manufacturing interests, and the actual improvement of them. Foreign capitalists are virtually repudiated by an illiberal policy. No capitalist feels safe in embarking his fortunes upon a coast where the bottom is as

* The simple repeal of a repealing statute revives the original statute. Commonwealth vs. Churchill, 2 Metc. 118, Com. vs. Mott, 21, Pick. 492, 502.

unstable and shifting as the waves that roll over it; and where no pilot can calculate or know the soundings for a day in advance. And no more safe is it for him to trust his interests to the protective grants of a State, which are liable yearly to be utterly changed, or exposed to regulations that are alike disreputable to the integrity of his enterprise and vexatious to the even tenor of its ways.

In respect to works of internal improvement, and especially towards railroad corporations, the policy of the State is becoming judiciously liberal. The liberality of the State towards the Cumberland and Oxford Canal Corporation especially, some years since, and towards some few kindred enterprises, has been worthy of all imitation and praise. But it detracts largely from this disposition to commend, to reflect that the few instances of State liberality of this character, that have occurred, compared with the wide field and grand results attainable, that have been open and have invited State encouragement, wear more the aspect of accident, or legislative *ruses*, than of a settled, enlarged, progressive State policy. There has, however, within a short time been accomplished in this direction, an advance, that promises to become an invincible pioneer in wakening up the people of Maine to a consciousness of their aggregated strength, in works of great resulting benefits to the public. The reader will understand this allusion to be, to the charter that has been granted to the Atlantic and St. Lawrence Railroad Company. Here the State Legislature has been brought to grant *a perpetual charter*—a right to hold property of an *unlimited amount*, both within and without the State, (consistently, in respect to the latter, with the *lex loci*, of course)—to exact tolls of passengers and freight, according to its own discretion, and *without legislative restraint*—to be exempt from connecting with any other railroad at any point whatever, on the entire westerly side of its length, *without its own consent thereto*—to exempt its real estate from all other taxation, by the several towns or cities where situated, than that to which private persons' real estate is subjected, and then to be valued only as "other real estate of the same quality in such town, city or plantation," is valued—to be forever exempted from all other taxation, than a division with the State of the nett income of the road, after it shall exceed 10 per centum per annum—and an exemption of the charter from being ever "revoked, annulled, altered, limited or restrained without the consent of the corporation, except by due process of law." It has also fifteen years within which to complete the construction of the road.

Taken all in all, since the days of Charles II., a charter of broader privileges, and of more valuable exemptions, has not been granted by any government, touching any interest within the boundary of any old or new State of this Union. One bright, encouraging example of this character, tends immensely to liberalize the whole public mind and feeling. It holds out to a hitherto pent-up legislation and people, richer promises of advancement in works of improvement and public grandeur, and of the countless advantages that accrue therefrom to an industrious population, than a dozen revolutions back and forth in the party politics of the State, by which personal ambition alone is exalted or debased, producing results which, with the persons themselves, are forgotten in a few short years at most. This charter, moreover, in the history of its inception and progress, bears conclusive illustration of the prefatory sentiments of this article, in respect to the difference of *meum* and *tuum*, in the exercise of power or privileges.

For, many of the ablest, as well as earliest and steadfast friends of the charter, with all its latitudinarian powers, once were reckoned among the astutest guardians and advocates of legislative restrictions upon corporations, and among the most formidable antagonists of the whole doctrine of vested rights in corporations. But poor indeed would be the worth of our experience and observation, if we were divested of the privilege of bettering our judgments and growing wiser in the practical offices of life—of abandoning the errors of previous short-sightedness, and correcting the illiberality of our prejudiced opinions. Let Maine, and her citizens, rising above the confined policy of mere partizan legislation, exult in bearing aloft to the vision and imitation of her sister States, in works of substantial public grandeur and individual wealth, her proud motto—"DIRIGO." And to do this, let it not be forgotten how potent to serve or destroy such efforts, is the influence of legislation, according as it be liberal and steady, or illiberal, vexatious and vacillating.

## Art. IV.—EFFECTS OF INTERNAL IMPROVEMENTS ON COMMERCIAL CITIES:

### WITH REFERENCE TO THE PENNSYLVANIA CENTRAL RAILROAD.

TO THE EDITOR OF THE MERCHANTS' MAGAZINE AND COMMERCIAL REVIEW.

IN the present paper I have endeavored to collect some few facts and arguments in relation to the Pennsylvania Railroad, and its supposed influence on the trade and commerce of Philadelphia. To facilitate the formation of a correct opinion on the propriety of building this road, it seems proper that a concise view of the general effects of internal improvements on commercial cities should be first considered. The elucidation of this point is necessarily the ground-work of the whole. Within the past ten years this subject has been most thoroughly examined, and I need not enter upon an enlarged argument. It will be sufficient to notice several prominent facts.

History is replete with the rise, progress, and fall of cities; changes of government, wisdom or imbecility of rulers, invasion by barbarians, and many items, constitute the causes. In later days we mark the rise of Venice; we see the lagoons, the fishers' islands start into a great city, commanding the commerce of the world. Genoa and Portugal rise as Venice falls, and the latter rules supreme. But her unwise policy soon yields to British influence, and for the paltry market for her mines she abandons her manufactures, and soon her commerce and greatness are numbered as things that were. But we need not follow the history of another continent for proofs; our own country, though young, is marked strongly with the same style. The town of Gloucester, in New Jersey, was located prior to Philadelphia, and carried on considerable trade for the times. Salem, Massachusetts, once a port to which New York was indebted for a large share of her India goods, now mourns her rotting wharves and silent streets, once busy with the hum of foreign trade. But the proof of the position is not confined to the actual fall of any town. But the fact that mutations have been and are taking place, demonstrates the point. Up to the close of the last war, Philadelphia was without a peer. Her commerce was in every sea; but peace, though welcomed by all, cast its blight upon the trade of this city, and thenceafter she had the competition of the bottoms of every nation.

The rapid settlement of the country then attracted the attention of wise men, and though Philadelphia (the first in all great works of improvement, whether for relieving the distressed, or extending the benefits of progressive mind) possessed a system of turnpikes, reaching every prominent point in the State, enriching her with the products of the State, and, as the tide of emigration moved west, securing the accruing trade, yet the construction of canals proved a successful rival to the heavy and lumbering Conestoga. We mark then the period of her declension by the year 1825, the opening of the New York and Erie Canal; and by the same year we mark the life, the manhood of New York. The rapid improvement of the counties bordering this canal, soon poured immense floods of produce into the city of New York; and as the western country has been improved, so their productions have turned to the lakes and to the empire city. Throw away the West, and no city on the coast could become the "empire." The many noble rivers by which the country east of the Alleghanies is drained, afford so many means of communicating with the seaboard, that in place of a few great cities, there would have been many smaller ones, each one at the debouchure of every river. But the vast West, with the Mississippi on the south and west, and the lakes on the north, is attainable by comparatively few routes, widely different in their character and merits. The Hudson river, breaking the Apalachian range, affords the best connection; and the mind of De Witt Clinton was not long in foreseeing the advantages that would result from a connection of the lake and the Hudson river. Years prior to this, the legislature or assembly of Pennsylvania authorized a survey for a canal to connect the Delaware river with the lakes and the Ohio river; and in 1769 the surveys were successfully accomplished. Many years after this, Washington, Jefferson, and other noble Virginians, desired the connection of the James river and the Ohio river. But it was left for New York, under the wise counsels of Clinton, to put into execution the fancies of others, and thus secure to New York the rich trade of the West.

In the history of Boston, during these passing years, but little can be noted. The changes in the policy of the country a few years after, induced the people of New England to turn their attention to manufacturing. Their barren lands, incompetent to sustain a large population, forced into their mills a full supply of labor, and New England ingenuity was thus permanently turned in that direction. The increasing commerce of New York furnished them a market for their goods, in turn consuming the produce of the West. The introduction of railroads was soon rendered subsidiary to the interests of Boston, and we soon see seven railroads entering that city, diverging with their branches to every attainable point of the compass.

Prior to 1841 the citizens of Boston perceived the influence of the canals of New York. They could see day by day the drayage of large amounts of goods and produce across their city, leaving but little profit; and were impressed with the conviction, that could they secure a connection with the West, the produce might be brought direct to their city, and return merchandise sold. Acting upon this conviction, and with a subscription of one million of dollars, they commenced the Western Railroad; the grand scheme of the day; a scheme that but few thought little less than folly; a scheme at which New York laughed and derided. But mark the change. From the day the Western Railroad was opened, new life

was imparted to Boston, while a heavy and lasting injury was inflicted upon the city of New York, and one consequence has been the declination in the real and personal estate of the city of New York, of over 1½ per cent per year for four years, or a total reversion in the scale of advancement of 10½ per cent per annum.

The influence of the Baltimore and Ohio Railroad over the prosperity of Baltimore, and of the railroads from Charleston, South Carolina, extending through South Carolina and Georgia, upon that city, might be appropriately referred to statistics to establish; but I think the above must be sufficient to prove the immense influence of internal improvements, connecting with the West, on the prosperity of every commercial city.

The fact of the successful rivalry of Boston over New York, proves that the best connections will not suffice to retain trade; and develops the interesting fact, that the convenient access to the manufacturing interest is the item turning the balance. Were the same amount of factories established around New York that are convenient to Boston, the Western Railroad would have been a dear whistle, a senseless project. The city of Boston, in place of being a mart, would have retained her position as an inferior town, interesting only from historical incidents.

Boston has expended about twenty millions of dollars in perfecting the various lines extending from her limits, and this is to reach every factory, every stream, every village within reach; and thus to concentrate the power or command the trade, and in effect to compensate for her limited space; and, as time is computed, to make the neighboring factories as near as they would be in a large and scattered city. There is great wisdom in this, but I think the lapse of a few years will prove that it will not answer. The introduction of steam-power must effect a revolution in the manufacturing interest. The capital invested in manufacturing is mostly held by residents of the cities, who are deeply interested in the prosperity of those cities; and inasmuch as they may be extended by an increase of the laboring class, the owners of property are benefited. The tendency of manufacturing is gregarious: it is so in England, and we see the tendency here. The advantages overbalance the disadvantages; and in this country the points of aggregation will be on the coast, where they can be protected in case of war. The use of water as a motive has hitherto prevented any striking instance of this fact, but where there is a large amount of water-power, we see it is all used; and Lowell, Nashua, Nashville, Pawtucket, are examples of this very tendency. The use of steam will obviate the previous difficulty, and full sway will now be given to this natural and reasonable course. The low waters of last fall have shaken the confidence of manufacturers, and many factories in the interior have been and are adding engines as an assistant power. There are many advantages connected with the use of steam, and I cannot do better than to refer to the able address of Mr. James, of Newburyport, delivered at Portsmouth, N. H., in the year 1845, on this subject.

Among the disadvantages connected with the use of water-power may be enumerated—

1st. The first cost of erection.

2d. The expense of transportation to market.

3d. The liability to the want of water.

4th. The necessity of investing a large amount of money in lands, erecting houses, making streets; thus diverting a large amount of capital

from its proper object, and requiring twice the amount of capital necessary to conduct the same amount of business.

5th. Economy in the use of steam.

The converse of these disadvantages constitutes some of the advantages proposed by the use of steam-power. The increasing number of factories in Providence, Newport, Bristol, and Newburyport, sustain the above position.

From the above statements we now deduce three conclusions—

1st. The immense influence of internal improvements, connecting with the West, on commercial cities.

2d. The power of a large and conveniently located manufacturing population to control the relative benefit of the above improvements on the prosperity of commercial cities.

3d. The superiority of steam as a motive power, and the decided tendency of the manufacturing interest to locate on the seaboard.

Having established these points, let us examine their bearing upon the city and county of Philadelphia, and ascertain her prospects to re-enter the field of commercial chivalry, and her chances of success.

First, then, her location in reference to a connection with the West. The State of Pennsylvania is indeed the Keystone of the Union; the body of America. While one arm rests on the Atlantic, she lays the other on the Ohio, and her hand plays with the waters of the lake. Within her hills is stored the fuel of ages, and iron, the world's civilizer, to bind the continent, and insure the stability of this great government. Erie, her outlet on the lake; Pittsburg, the head of the great eastern branch of the mighty valley; and Philadelphia, not only the beautiful city of the plain, but destined to be the leading city of the North, a city worthy so great a State. In the present competition her rivals are east. The mass of productions of the forest, agriculture, and the mines, are derived from Ohio, Indiana, Illinois, Michigan, and the ascending trade of the Mississippi valley. Her chances may be calculated by her location relative to these States, New York and Boston being the rival cities. Taking the map and improvements as made, and the routes to be considered are—

1st. From Boston to Albany, thence by canal to Buffalo, and by Lake Erie and the western improvements to the prominent points in the above named States.

2d. From New York to Albany, thence as by first route.

3d. From New York to Piermont, from Piermont to Dunkirk, thence by lake, &c., as above.

4th. From Philadelphia to the same points west.

To tabulate these routes will give the following synopsis:—

| Railroad routes from the seaboard to the interior. | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. |
|---|---|---|---|---|---|---|---|---|---|
| From Philadelphia, via Pennsylvania Railroad, to Pittsburg, thence by the Pittsburg and Cleaveland Railroad, and by the other railroads finished or projected..... | 45 | 336 | 466 | 512 | 552 | 655 | 788 | 719 | 960 |
| New York, via Hudson river, to Piermont, and the New York and Erie Railroad to Dunkirk, 476 miles, thence by Lake Erie to ports on said lake, thence by the railroads of Ohio, Indiana, and Illinois, above named..... | 66 | .... | 646 | 694 | 735 | 906 | 971 | 961 | 1,202 |

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. |
|---|---|---|---|---|---|---|---|---|---|
| New York, via New York and Albany Railroad, to Albany, thence by railroad to Buffalo, 468 miles, thence as above..... | 80 | .... | 678 | 726 | 767 | 938 | 1,003 | 993 | 1,234 |
| Boston, by Massachusetts and New York railroads, via Albany, to Buffalo, 521 miles, thence as above..... | 85 | .... | 731 | 779 | 820 | 991 | 1,056 | 1,046 | 1,287 |

NOTE.—Column 1 denotes the maximum grade in feet per mile; 2, miles to Pittsburg, Pa.; 3, miles to Cleaveland, O.; 4, miles to Sandusky, O.; 5, miles to Toledo, O.; 6, miles to Cincinnati, O.; 7, miles to Chicago, Ill.; 8, miles to Lafayette, Ind.; 9, miles to St. Louis, Mo.

This table proves the advantageous position of this city with reference to the western trade, and with reference to Boston and New York, but which I will refer to more particularly hereafter.

The consideration of the second conclusion need be but hasty. The point is, can manufacturing be profitably followed in or near this city? The large amount of money already invested is sufficient proof; but the full benefits of the position have not been fully realized. Until within a few years, the superiority of steam-power was unknown, though fuel was so plenty and so cheap; our manufacturers seeking water as a power. The advantages of this city are many, and may be considered as mainly consisting in—

1st. The low cost of material. Our connections with the South furnish cotton at a low rate, and increasing trade will tend to reduce the freight. From the West, a great supply of wool can be most readily obtained, and thus the raw material can be procured at a lower rate than at any other point.

2d. The cost of machinery must be less. The rapid improvements being made in the construction of machinery, cause large amounts of iron to be used; and when located here, machinists could of course purchase lower, with a better market to select from, and thus secure greater economy to the consumer.

3d. The cost of subsistence would be less. The vicinity of Philadelphia abounds in very rich lands, and her markets are justly celebrated for their variety and quality. In addition to this, her avenues with the West will enable her merchants to make better returns of sales to the producers, at the same time affording the article at a lower price.

4th. These superior avenues will enable her to secure the custom of the West, thus insuring a market for her goods and wares, while we consume their produce. This is an important point, and may be looked at more critically.

The third conclusion will cause a great increase of power in and around this city, for here the cost of power must be the least. If the manufacturers of New England can afford to pay freight on coal from here to their factories, and then prove that steam-power is as cheap as water-power, and preferable for other reasons, much more can steam be successfully used here; and then the tendency to the seaboard will have the full development. We have ample room, fine climate, and every inducement to the fulfilment of this natural tendency. Again, here will be the mart, and there will be a saving of transhipment. We are forced to expend no money to bring manufactured goods to this city. We have no Lowells, Nashuas, Merrimacks to build, and some twenty millions of dol-

ars to expend: but every inducement is offered here at the great mart; and this money may be turned in its proper direction, aiding in the business of the city. I might still enlarge on these interesting points, and produce a calculation of the actual comparative expenses of building and conducting a factory here and in New England, and prove that an establishment here can make 6 per cent, while one of the same calibre in New England could but balance accounts. But I think my proofs of the capability of Philadelphia to fulfil the three requisitions which will secure the commercial ascendancy of every eastern city, are ample. Philadelphia is situated in precisely the same circumstances with Boston prior to building the Western Railroad. Her canals will not answer the purposes intended, and we see, year by year, her trade and commerce falling off. Goods manufactured here find their chief market in New York; through New York our importations are mainly made, and, with the exception of a trifling spring business, our trade is confined to Pennsylvania. Like Boston we have aroused from our slumbers, shaken off our torpor, and are determined to make one great effort and replace ourselves among the great cities of the western hemisphere.

In the table above given, you observe, "Philadelphia, via the PENNSYLVANIA RAILROAD, to Pittsburg, 336 miles." 108 miles of railroad are built, extending from this city to Harrisburg, and the remaining 228 miles constitute the Western Railroad of Pennsylvania. This road will unlock to this city the treasures of the West, and bring into use every advantage above described.

As early as 1838 the Pennsylvania legislature authorized a survey to ascertain the practicability of crossing the mountains between Harrisburg and Pittsburg by railway, with no grade exceeding forty-five feet per mile. These surveys were continued during the years 1838, '39, '40, and '41, and resulted in the discovery of three main lines; but the route, seemingly the most practicable, is designated the middle route, and extends from Harrisburg, crossing the Susquehanna river about four miles above that town, thence by the Juniata river to Petersburg by the little Juniata river and contiguous streams, crossing the summit within two miles of the Portage road, and thence in the vicinity of the present road, crossing the Conemaugh river near Blairsville, and across the country to the Monongahela at the mouth of Turtle creek, and thence by the river to Pittsburg.

The total elevation to be overcome is 2,380 feet, and the estimated cost for a road-way, graded for a double track and single track laid, and complete outfit, $8,845,240. The first 120 miles, extending from Harrisburg, has no grade exceeding twenty-five feet per mile, and is of easy construction. In the passage of the mountain the heavy work is encountered. This peculiarity will be of great service in the conduction of the road, and will enable it to be more properly managed.

It is proposed, and may be the proper course at this time, to connect with the Portage Railroad, and complete the work over the mountain as the company may be able. After its completion it will be to the interest of the State to use the road over the mountain, the difficulty of the navigation being from Holidaysburg to Petersburg. This, then, is the road Philadelphia is about building; and having considered the grounds of the prosperity of eastern cities and their peculiar adaptation to this city, I will endeavor to make a more extended application. In the first place, the western connections of this road.

With this road completed to Pittsburg, you find a road (which will be

built by the citizens of Pittsburg in time) to connect with the Pennsylvania railway, extending from that city to Wellsville, at Beaver meeting the Erie canal, extending to the town of Erie on the lake of that name; the Pennsylvania Canal and the Cross-cut Canal; from Wellsville to Cleaveland a railroad is about starting; from a point on this road a short line will be built to Wooster, intersecting the Cincinnati, Columbus, and Cleaveland Railroad, and at Columbus and Massillon meeting the Portsmouth and Ohio Canal. The main line from Wooster to Springfield, Illinois, following the highland of Ohio, Indiana, and Illinois, meets the Mansfield and Sandusky Railroad at the former town; and, from Sandusky tapping the Michigan road from Detroit to St. Joseph, at Jackson, Michigan, crossing the Sandusky Railroad, extending from Cincinnati to Sandusky, at Kenton; the Cincinnati and Sandusky Canal, near Celina; intersecting at La Fayette the Wabash and Erie Canal, the La Fayette and Madison Railroad, and the La Fayette, Pontiac, Peru, and Galena Railroad; at Springfield meeting the road to St. Louis, to Peru and Quincy on the Mississippi river; and from some point on the Mississippi river in this vicinity becoming the road to Oregon, a road that must and will be built ere many years transpire. This is a general outline of these canal and railway connections. Already movements are taking place in the West to secure these lines, and the citizens of St. Louis have authorized surveys from that city to Indianapolis.

By reviewing this sketch, you will observe that we tap the lakes at Erie, Cleaveland, Sandusky, Toledo, Detroit, and Chicago; the Ohio river at Pittsburg, Wellsville, Cincinnati, Madison, and Evansville; and the Mississippi river at St. Louis, Quincy, Davenport, and Galena. A reference to the table of distances inserted above, will prove, that in relation to each point named, this city is more favorably located than New York or Boston.

2dly. The relative cost of transportation on the different routes. In the Railroad Journal of November 7th, I made a calculation of the cost of transportation on the routes above named, and from that article would extract the following:—

"I regret being unable to give as full an account of the charges between the different points as is desirable, but the items as given are sufficiently accurate to form a reliable basis of estimation. For the charges on the railroads, the rates of freight on the Western Railroad from Boston to Albany, 200 miles, have been adopted. For the canal charges, I am indebted to an extensive forwarding house in Albany, and the rates as given are the low summer and merely living rates. The charges fluctuate greatly on the canal and lakes, but the only safe basis is the rate at which the business will secure responsible shippers.

| | Per 100 lbs. | Per Ton. |
|---|---|---|
| From Boston to Cleaveland, (via Wes. R'd, Erie Canal, and Lake Erie,) | 94cts. | $18 80 |
| From New York to Cleaveland, (via canal and lakes,) | 66 | 13 20 |
| " " " (via New York and Erie Railroad and lake,) | 81 | 16 20 |
| From Philadelphia to Cleaveland, (via railroad,) | 64 | 12 80 |
| " Boston to Toledo, | 97 | 19 40 |
| " New York " (canal and lake,) | 69 | 13 80 |
| " " " (railroad and lake,) | 81 | 16 20 |
| " Philadelphia to Toledo, (railroad,) | 76 | 15 20 |
| " Boston to Cincinnati, (via Toledo,) | 1 63 | 32 60 |
| " New York " " | 1 35 | 27 00 |
| " " " (via railroad and Toledo,) | 1 41 | 28 20 |
| " Philadelphia " (via Pittsburg and river,) | 76 | 15 20 |

Here there is a comparison made on the most favorable side for the eastern roads and canals, and without allowing the full merits of the line from this city. Though these merits are not susceptible of accurate estimation, yet every reader will confess their great importance. I will note some of the preferences due to this line of road, and leave the valuation to be made by the reader.

1st. The grades. As above stated, the calculation for the cost of transportation is made on the basis of the charges of the Western Railroad. This road passes over two heavy summits, having an aggregate rise of about 5,000 feet, and with grades as high as eighty-five feet per mile, located through a difficult country, and exposed to interruption by snow. Yet this road, built at a cost of nearly eight millions of dollars, yields for 1846 an interest of 7¼ per cent. Their tariff of freight must of course be profitable. The New York and Erie Railroad passing the ridges and mountains at right angles, necessarily causes several summits, the depression of the Delaware, Susquehanna, and Alleghany rivers being very great. Their total amount of elevation cannot differ much from that of the Western road, and with grades of sixty-six feet per mile. The Pennsylvania road will have no grade exceeding forty-five feet per mile, and the country west is known to be favorable for railroads, and requires no grade exceeding this. Is there not a decided advantage thus given to this line? Every one, the least familiar with the working of roads, can appreciate this great superiority.

2dly. In transhipment. On the Boston route there must be two transhipments to lake ports, and three to any other point: on the canal route from New York, one transhipment; and on the railroad route from New York, two, and in many cases three. With the Pennsylvania route there need be no change. The car destined for Cincinnati, Cleaveland, Toledo, or any other point, may be loaded in Philadelphia and left untouched until its arrival at the destined point. Every person engaged in western trade, and every western merchant, can appreciate this advantage, not only saving an additional expense, but also great damage to produce and merchandise.

3dly. The saving of time. The increasing valuation of time is exemplified in the very construction of railroads. We can no longer spend days and weeks in journeying to and fro. Even daylight is considered so precious that the travelling of the business community is principally performed during the night. The effect of this line of road will be to expedite travellers. A few hours will suffice to carry the traveller from the east to the west, and he be subject to no interruption from storms or want of conveyance. It will also be a saving of time in the transportation of produce and merchandise. The slow movement of the barge, and the various causes of detention on the canals and lakes, will be avoided. A few days will transport to our most western country any merchandise, and bring back their produce; and the certainty of receiving at a fixed time the produce or merchandise, enhances the value of this line.

4thly. The insurance on the lakes. This item cannot be estimated in a table, for the simple reason of the variable nature of merchandise: but it is an important item. The usual insurance on the lakes is ½ per cent. In many cases this will equal the freight. The high rate of insurance proves the danger. Storms on Lake Erie are said to exceed those on the Atlantic, and the urgent calls on Congress to provide good harbors on

Lake Erie is additional proof. How strong the inducement to western merchants to use the line that will afford them superior advantages and save this risk. A great inconvenience connected with the dangers on the lakes is the uncertainty felt by the merchant. His purchases east are made with care and taste to suit his own market, and the receipt of this merchandise as purchased is of consequence to him. Will he not avail himself of that line free from risk, and affording the certainty of receiving his merchandise as purchased?

5th. Availibility of the line at all seasons. Herein is a great desideratum. It is against the policy of Americans to remain locked up by ice one-half of the year. We have rendered time tributary to our benefit; we have made the electric fluid subsidiary to our wants, and can we stop our whole machinery from natural causes? Not so. There must be a continual communication throughout the United States. This desideratum is afforded in the proposed line of railroads. The present course of commerce runs thus:—the collection of large amounts of produce at the different shipping ports in the West during five months. On the opening of navigation in the spring, and prior to the closing in the fall, there is a rush, forcing every nerve and using every means to forward produce, each one being anxious to secure the first chance of the market, and to pour as much produce as possible into the market during the fall; the effect being to depress the markets below the actual value, and thus injuring the producer. Any rise in the markets east during the winter is not available to the western people, and the consequence is, an unhealthy rise in the eastern market, elevating the prices east and west when the canals open; a depression follows, and loss and ruin often ensues.

What a revolution in this ill-formed trade will the opening of a continuous railroad produce! It will be a governor to the commerce of the country, enabling the producers to forward their produce as prepared, to take every advantage of the market, prevent any great fluctuations, and make their purchases as they require, thus making all trade more regular in its movements.

In a financial view, it will be of great benefit; an inference from the foregoing remarks. The system of making advances to western millers and merchants, so extensively pursued in New York and other cities, is a very bad one; and the reverses of last spring furnish a profitable lesson. This will be reduced to proper bounds, and if the factor advances to the miller to purchase wheat, he can have the flour in market in a few days, and thus at no time be much in advance. And the fact that merchandise will not be purchased in such large amounts at one time, will tend to relieve the purchasers West and the merchants in eastern cities. The whole influence will thus be salutary.

The aid of the telegraph will be brought into requisition, and large amounts of flour and produce be sold through its medium. Sales of flour may be made in the West to-day, and promises of delivery in three or four days, thus bringing the western millers on nearly equal ground with those located near the seaboard.

6thly. In the present movements of western trade, the cities on the lakes become the depots, and to secure the trade this must be the course; but by observing the locations of the routes above indicated, this course of trade will be altered; and to obtain the trade, we are not forced to go to Cleaveland, Sandusky, or any lake city, but every depot along the net-work

of railroads and canals become the points at which we aim. This line is the great Mississippi, and will have its branches reaching every point in the West. We then obtain our trade in the heart of the producing country, and thus save to the western people the expense of sending their produce to the shipping city, and receiving their merchandise therefrom, which amount of freight serves to lessen our rates and to add to the expenses of other lines. It is certain, then, that this line will secure the entire trade of the West for the fall, winter, and spring months, at least during the time the lakes and canals are locked up with ice. The balance of the year we would more than have equal chances. These are some of the advantages connected with this line.

The winter trade of the West now seeks New Orleans as a market, being completely debarred from the North. Take away the cotton and sugar trade of that city, and the balance is entirely derived from the up-country, and mostly received during the winter.

There are so many changes incident to this trade, and so many drawbacks to its successful prosecution, that produce will not be shipped there when other avenues are open. Here, then, we open the avenue, and secure, at the least calculation, a trade worth twenty millions of dollars. It is unnecessary to make any remarks in reference to passengers. The advantages in this case are so decided that there is no doubt that two-thirds of the whole travel will be secured to this line.

In writing of the effects of these lines of trade, I am led on almost against my own judgment in speaking of rival lines. To look ahead at the progress of the western country, conceive its population doubled in fifteen years, its vast resources constantly developing, the great increase of trade consequent, and it seems idle to write of rival lines. There is enough for all, and many more such lines. True, some peculiar locations will command certain trade, and with that impression have I written, to show the trade that will inevitably be secured to this city. That it will be a greater amount than any other point, I cannot doubt, but that other cities will in consequence be ruined cannot be believed.

If all my premises are correct, the conclusion is unassailable. And how strong the arguments thus adduced to the people of Philadelphia to enter at once upon the construction of a road offering so great inducements; the effect being to elevate the city, and thus enable her to enter the field a bold and successful competitor for commercial ascendancy.

Philadelphia is destined to be the coal and iron depot of our continent; the centre of the manufacturing system, and a vast warehouse for western trade. Capital will flow in from every quarter, and improvements extend to every portion of the State; and Pennsylvania, free from debt, will in truth be the Keystone of the Union, and be pointed to as an honor to the government, an honor to man, an honor to the world. J. A. W.

## Art. V.—THE SEA RESOURCES OF THE COAST:

### AND THE WHALE AND SHORE FISHERIES OF NEW LONDON.

STERILE as the rocky coast of Connecticut may be, in comparison with the fertile valleys of the West, and scanty as may be the product gathered from the rugged surface of its soil, Connecticut contributes her full quota to the national coffers, and furnishes her full share of material for the national defences.

It has become so fashionable to disparage her stony shores, and to ridicule the meagre amount of her agricultural resources, that her people have really seemed disposed to let judgment go against them by default, and to submit in silence to all the flippancy that has been let off upon them, and upon the honest old pilgrim soil which gave them birth. They have entered no counter-plea, and manifested no desire to do so.

Content with their own lot, they heed very little the estimate that may be put upon it by others; and being somewhat thick-skinned towards detractors, she has been quiet under their calumnies, and even ridicule has scarcely found itself effective in disturbing their sensibilities. Conscious, themselves, of a tolerable degree of comfort in the world, they have cared very little for what other people have had to say about it. Finding no great difficulty in maintaining their families, educating their children, and keeping their accounts square with their neighbors, it brings no special trouble to their minds that the land from which they gather the means of doing all this, will rarely yield them more than thirty bushels of corn to the acre, while their Indiana and Illinois friends can obtain two or three times as much from theirs, with perhaps one-half the labor. So long as they can keep their crops and their creditors upon tolerable terms with each other, it is matter of very little regret to them, that the former are not large enough to flatter them into factitious flourish, nor the latter numerous enough and exacting enough to tempt the debtor into repudiation. The Connecticut producer has less "chivalry," or, at any rate, it is rather less obtrusive, and abundantly less noisy, than that on the banks of the Santee and the Mississippi; but perhaps, after all, it is nearly as nice in its honor, and quite as convenient in its "high-mindedness;" for it consists, mainly, in a rigid adherence to principle—the principle of performing what it promises.

His land may not be so rich as that of his Western and Southern brethren—it certainly is not—and he may not himself be as individually rich as the great planters and farmers of Carolina and Pennsylvania, and he certainly is not, so far as the *possession* of great apparent wealth is concerned; but it will be our business to see whether the riches, as well as the personal comforts and individual independence of this people, are not fully equal in the aggregate.

The Yankee land is cold, bleak, and rocky; at least, large portions of it are so, and not more than half as good as that of Ohio, or western New York, for growing wheat; compared with that, it will rarely yield more than half a crop of potatoes, but it is good for something, nevertheless. It is no great thing for hemp or flax, but first-rate for building wharves upon;—not particularly productive in corn, but capital for cod-fishing from, and excellent for shelter to whale ships. The soil is rich enough, at any

rate, for raising raw material for ships, and the hardiest sailors that ever floated upon salt water, for navigating them.

It so chanced, a short time since, that we were thrown among some statistics touching the business and resources of a small section of Connecticut, and that, too, the very poorest portion of the State, so far as soil is concerned. The Collection District of New London, embraces only that portion of the Sound coast which lies between the mouth of the Connecticut River and the Western shore of the Mystic, a distance of less than twenty miles, and though the land lying immediately on the water is for the most part tolerably good, the productive soil does not reach more than a mile from the Sound, on an average; and back of that, for some distance into the interior, it is as poor and as unproductive as any part of New England—a considerable part of it too poor even to be cultivated—worth nothing but for wood, and for a scanty pasturage for sheep.

Now, let us see what this seemingly unpromising portion of poor old Connecticut really *is* worth to the owners and to the country.

Within that circumscribed district, there are owned, manned, and fitted out, 57 ships, 16 barks, 1 brig, 5 schooners, 1 sloop—total 80.*

These eighty vessels are engaged in the whale fishery, and cruise in every accessible quarter of the globe, and in some quarters which have proved *inaccessible* to all others; for, in the language of Burke, their sails whiten every water, "from the tropics to each extremity of polar cold," and it has not unfrequently occurred, that the bold and unflinching navigators of these ships have been found floundering among the mountain icebergs of the North and of the South, amidst which, even the daring enterprise of explorers, expressly fitted out for new discoveries, had become dismayed and turned back.

These vessels are manned by crews mostly made up of the hardy sons of the soil, and number, at present, a body of 2,295 men, many of them shareholders in the ships they sail in, and all of them interested in the voyages they make. Each man receives a *pro rata* proportion of the oil and bone taken on the cruise, and consequently has a direct incentive to the ample exercise of all his energies. The men engaged in a New Lon-

* The Collection District of Stonington, lying directly east of New London, and between that port and the State of Rhode Island, belonged, until within a few years, to New London. The length of coast, embraced in the new district, is less than nine miles; and the following statistics exhibit the flourishing state of the foreign and home fisheries within it:—

Whaling ships at Stonington proper, 20; barks, 7; whaling ships at Mystic, 10; barks, 2; total, 39. The number of the crews manning these vessels, is 1,150.

The smacks over 20 tons, are, schooners, 4; sloops, 23; under 20 tons, 21; total, 48. One of these smacks is of 89.27 tons burden, another is 86 tons, another over 75, and there are several from 40 to 56 tons.

These vessels, like those of their class in the district of New London, are mostly managed on shares; the crew taking three-fifths of the whole "catchings," and the owners, the remaining two-fifths for the use of the smack.

It may as well be stated in this note, as in the body of the article, in which we overlooked the fact, that some of these small vessels, in both districts, generally go into southern latitudes during the winter, and return, in the spring, for the New England coast fishery. Some of them have even doubled Cape Horn, and cruised on the Chilian and Peruvian coasts, carrying their fish into Callao, and other South American ports for market. They have not, however, been very successful heretofore, in these enterprises. It is not at all uncommon to see a New London or Stonington smack, unloading her finny cargo, at Rio Janeiro, or Buenos Ayres.

don whaler, work hard and get rich slowly—but they get rich and bring riches into the country; and, what can be said of scarcely any other branch of nautical business, there is, in their case, a fair division of avails.

The officers share in proportion to the responsibilities of their grades, from master down to boat-steerer, and the men, proportionate to individual claim upon the common profits of the voyage—a claim, grounded upon the skill, experience, and bodily activity of each. Nothing could be more equitable than this apportionment, and nothing better calculated to secure the certainty of a profitable return to labor, so far as human exertion is capable of securing such a certainty.

The total return of these ships, in the different kinds of oil, and in the bone obtained from the whale, amounts to about $32,000, upon each voyage, as nearly as the average can be made out from the data in our possession. These returns are made, in one, two, or three years, according to the quarter of the world in which they cruise, and to the success met with in finding and capturing the oleaginous monsters in whose pursuit the whaleman goes.

The vessels employed in the whaling business, from this port, are generally from 250 to 350 tons, though a portion of them are much larger; and there are at this time several ships in the "fleet," which were built for European packets, and engaged for a number of years in the New York, London, and Liverpool lines. The average tonnage, however, is about the same as that from Nantucket, New Bedford, and the other whaling ports of New England; but New London has cruising, at this time, the largest and the smallest whalemen in the world—the ship Atlantic, being 699 tons burden, while the schooner Garland is only 49 tons. The latter little craft, mere cockle-shell as she is, is breasting the billows off Derotation Island, in the Indian Ocean, as a tender to the ship Charles Carroll; her sturdy crew as confident in the staunchness of their vessel, and as little dreaming of danger, as if they were cruising in a line-of-battle-ship within sight of their own shore.

This very general view of the whaling statistics of the district, is sufficient to rescue the twenty miles of sterile coast from the charge of utter worthlessness, and to enable the people inhabiting it, to hold up their heads with some confidence among their countrymen, amidst the jeers, with which some of those countrymen so much delight in disparaging them. But,

Their resources reach beyond their whaling operations, or, to speak more accurately, their riches are not confined to the wealth acquired in distant seas, and remote quarters of far-off oceans. They find a mine of wealth, as it were, at their own doors, and are actually *educating* hundreds of hardy seamen for the country's service, within sight of the rocky promontories, whose shingly shores and shallow soil are deemed so valueless by the lords of prairie-land, and the notables of the "Ohio bottoms." Nor is this noble school for furnishing the commerce of the country with its best sailors, without its present profits while in operation. It is making comfortable, and even securing competency, if not actually making rich, the families of its pupils, at the same time that those pupils are hardening themselves into a body of men, so invaluable to their country, not only for its maritime prosperity in peace, but for its defence and its security in war. It is unnecessary to say, that we refer to the coast fishery, and to the immense comparative amount of interest connected with it.

The little city of New London, which forms the *nucleus* of the branch of the national industry and enterprise embraced within the narrow limits with which we have to do in this article, contains but about 8,000 inhabitants, and is looked upon as but a moderate sized village seaport, not very attractive in its aspect, and by no means likely to lead a stranger into any very high estimate of its wealth, but is, nevertheless, quietly and unobtrusively contributing to its own comfort and to the resources of the country, in a degree little known, and consequently little appreciated by the public.

The number of vessels now employed in the various kinds of fishery on the coast, from the Grand Banks, in the East, to Cape May, in the South, is no less than as follows :—*

| | |
|---|---|
| Schooner-smacks, over 20 tons, | 9 |
| Sloop-smacks, " | 46 |
| Sloop-smacks, under 20 tons, | 30 |
| Total, | 85 |

Many of these smacks are of sixty and seventy tons burden—some, we believe, reaching ninety. A beautiful schooner, just rigged, and now lying at the wharf, nearly ready for a cruise, is of about seventy tons—as beautiful in model, as sound and faithful in construction, and appointments of all sorts, and as firm in substantial finish, as any craft that ever encountered salt water. They are unquestionably the best and safest sea-boats in the world, and nothing that carries canvass can compete with them in going to windward; nor will they ever find competitors, till some sea-philosopher contrives a craft that can make her way with sails, alone, directly *into* the wind. So perfect is the working of these vessels, and such the daring and undaunted skill with which they are managed, that they are rarely ever lost—perilous as is the employment in which they are constantly engaged, and terrible as are the winter storms they are continually encountering. Indeed, the hardy and bold men who own and navigate them, are so confident of their qualities, and of their own capacity for conducting them with safety through every trial that may await their adventurous career, that, we believe, they generally act as their own insurers without calling upon incorporated offices to run any risk on their own account. They look, under Providence, to their own courage, and the strength of their own practised right hand, for all indemnity against danger.

These eighty-five vessels average something more than four hands each—some of the largest carrying seven or eight—making an aggregate of at least 400 men and boys, actually in constant employment on board; while it is estimating very moderately, to say, that the number connected with them on shore, and directly interested in the success of their labors, cannot be less than 1,500. This, of course, is exclusive of the numbers indirectly benefited by their business, more or less immediately. The ship-carpenters, the rope-makers, the riggers, and mechanics of almost

* It is proper to say, that this list does *not* include a ship and a schooner, which recently fitted from New London, but which are known to have been lost; and that it *does* include two ships, which, though fitted out lately as whalemen, are at present employed in the freighting business to Europe.

every class, the farmers, and, indeed, nearly every member of the community around them, are, in some measure, connected with their prosperity; and pitiless would be the condition of the great cities, but for the untiring enterprise and fearless self-devotion of the smackmen. How would it sit upon the stomachs of their fellow-citizens of Baltimore, Philadelphia, and New York, to go into market some morning, and be informed that the smackmen had given over their business, and that the haddock and the halibut, the lobsters, the blackfish, the paugies, the Hannah Hills, and every other sea luxury to which they had been accustomed, were to be looked for elsewhere?

Such an announcement would probably open their eyes, in some small degree—open them far enough, at least, to smooth down some of the wrinkles which so frequently disfigure their faces in endeavoring to look contempt upon the rough visages and coarsely-clad bodies of the Yankee skippers. Humble as may seem the calling of these rugged, and sometimes ragged, denizens of the reef and the rock, they constitute a class of men, more respectable among themselves, more useful to those around them, and more important to the community to which they belong, than forty times the number of showier popinjays who love to laugh at them!

Such are some of the men who make up the population of old Connecticut. Such is some of the material of national greatness, so looked down upon by the politicians and political economists of the country. Such are some of the *products* of the barren sea-beach, so often undervalued, so flippantly derided, and so rarely understood.

It is impossible, from the nature of the business, to arrive at any strict accuracy, or, perhaps, any very close approximation to it, in estimating the amount of clear profits annually earned by these New London smackmen. It probably reaches nearly $100,000; and such a sum, added to the amount brought on shore by those engaged in fishing on a larger scale in the Atlantic, the Indian, and the Pacific Oceans, strikes us as placing this much despised section upon a footing of very tolerable equality, with the vaunted productiveness of regions enjoying a more favored fertility of soil. Nor have we deemed it necessary to take at all into view, another branch of maritime industry, in which the people of this district are engaged, though it is of itself of no inconsiderable value and importance. The coasting business, proper, is of very considerable extent, and the source of a very handsome profit. We have taken no pains to reach the amount of this business with anything like statistical exactitude, it being simply our purpose to look more particularly into the foreign and coast fisheries of the place; but still, the coasting trade between New London, and New York, and Albany, from the former to Philadelphia, Baltimore, Charleston, New Orleans, Texas, and even the ports on the Gulf of Mexico, is of no very contracted consequence, though certainly secondary to the greater and more engrossing interests on which we have principally dwelt. That the rocky region round about her, is worth *something* to New London, besides for affording shelter to her 'long-shore fishermen, and furnishing ground enough for *lying alongside of*, in fitting out whalemen for the coasts of Japan and Madagascar, it were not out of place, perhaps, to say, that several of her vessels have, within a few years, been employed in transporting some thousands of tons of her surplus granite to Vera Cruz, which now presents the best portion of masonry in the castle of San Juan d'Ulloa, while others have carried cargoes to Ali Pasha, for the construction of for-

tifications at Alexandria and Grand Cairo. These latter specimens of traffic may possibly be considered more profitable than patriotic, and so we once took occasion to say to the proprietor of the quarry; but he seemed to look upon his patriotism as perfectly intact in the transaction. With regard to Mexico, he was quite sure that he was doing good service to his country; for he was making Santa Anna pay—and pretty roundly, too—for New London county rocks, which Uncle Sam's ships would go out some day and knock all to pieces, and thus render good for nothing to the Mexicans, when the yellow-faced rascals would be obliged to buy more of him; and thus, while the navy were battering their forts about their ears, he (the stone merchant) was draining them of their money. Upon some similar principle, he justified his dickering with the despot of Egypt.

However, New London derives her main importance from the wealth which she draws from the deep. What enriches her citizens impoverishes no one else. Her riches may properly enough be called *an invention*. The fisherman *finds* them amidst the sea, where no claimant can interpose a prior ownership, and all he brings ashore is original virgin gold, before unknown and unowned.

The little city is fast assuming an unmistakable aspect in this respect. She is becoming a new creation. For nearly two centuries she remained what she was when the pilgrims planted their staves upon her barren borders—a mere hamlet of humble dwellings, upon a bleak and rocky hillside. For fifty years, she continued stationary, as a "county town of 3,000 inhabitants"—varying, for all that time, as little in her census as she did in her habits; no more dreaming of the day when her noble harbor would shelter eighty of her own ships, than she did of rivalling her English namesake in the number of her churches and the splendor of her palaces. She even seemed to deem it undesirable to *improve*. She was perfectly satisfied with what she was, and looked askance upon every fresh attempt to make her either any bigger or any better.

But a great change has come over the spirit of her dreams. She has shaken off the lethargic slumber that was upon her, and if a few of her *aboriginal incubi* do not refuse to let go their hold, and some of her modern doctors do not insist on administering too much opium, she will remain awake till she takes her place among the proudest of her sister communities.

No port upon the coast of the North American continent furnishes superior advantages to that of New London for foreign and domestic navigation; and poor as may be the soil immediately surrounding the town, (and poor enough it certainly is,) there are few localites in the country offering greater facilities for a flourishing and prosperous business, and the building up of a first-class town. C. F. D.

## Art. VI.—THE UNION OF THE ATLANTIC AND PACIFIC OCEANS.

In order fully to avail ourselves of all the sources of trade which have been thrown open to us by our conquests on the western coast of America, it is indispensable that a canal or railroad should be constructed across the Isthmus of Darien.

So much has been written upon the subject since Baron Humboldt first

drew public attention to its feasibility, and the advantages that would result from its accomplishment, that we are astonished at the delay of selecting the route, and putting into execution a project of such vast consequence.

In the settlement of California alone, the advantages of such communication cannot be over-estimated. Our rapidly increasing commercial relations with the East Indies, China, Australia, the Fejee and Polynesian Islands, and South America, call loudly for its commencement; to say nothing of our immense whaling interest in the Pacific. We have reason to fear that one of the two great European States which have so long had the work in contemplation, will subject us to the mortification of receiving at its hands, the facilities which are so necessary for the advancement of our political as well as commercial interests.

Boasting, as well we may, of a canal such as the world never saw, commenced and completed by a single State, can we doubt the ability of the United States to accomplish a work of far less magnitude, although of much greater importance? Will not the attention of Congress be attracted to it, and measures at once adopted for the furtherance of this great object?

For the following information we are partly indebted to a highly distinguished functionary of a foreign power, long a resident of Central America, whose anxiety is, that when the enterprise shall be taken in hand—and it certainly must be, at no distant day,—its success may be secured by a judicious selection of locality.

He considers that a line from the bight of the Mandingo Bay, (in the country of the San Blas Indians,) to the Pacific coast, near Panama, is the best route. The isthmus here is much narrower than at any other points, being only eight leagues across. Besides, the mountains of the central range, which elsewhere offer a serious barrier, have here gradually dwindled, so as to give striking evidence to those who view them from the bay, that this is the right point for the transition to be made. It is common for the Indians to transport their canoes from one ocean to the other, by taking them up the River Mandingo, (that has a long course from the southward,) hauling them over a narrow neck of land, and then descending the course of another stream, into the Pacific, not far to the eastward of Panama.

This locality possesses the advantage over all other, of a salubrious climate; and while Chagres and Porto Bello are, from miasma and constant rains, rendered the most deadly ports to which a foreigner can resort, the climate around the Mandingo is perfectly healthy at all seasons. This spacious bay, with its deep channels, among innumerable islands, possesses unrivalled accommodations for the navies of the whole world, in anchorage or in mooring to the islands. Even Porto Bello, whose name indicates the character of its haven, must yield the palm to Mandingo.

The coast of San Blas is said to be more dry and salubrious than even the shores of the Musquitia, which have been considered healthy to a proverb; and its soil, even under the wretched cultivation of a demi-savage population, teems with more produce than the Indians can consume. The surplus, beyond what is required for the shipping, is used for fattening swine and poultry, which are reserved for supplying the trading vessels—it being considered, by the Indians, disgraceful for them to consume these domestic animals, while the forests yield so abundantly of wild ones, and the bays and rivers an ample supply of fish and turtle.

Of the other contemplated routes, that between the river Guasacualer, which flows into the Gulf of Mexico, and the Bay of Tehuautepic, in the Pacific, is the least likely to be adopted. Another is that ascending the river and lake of St. John de Nicaragua on the Mosquitian shore, and descending from the latter by the course of a small stream, into the Gulf of Papagayo; and a third route, by connecting the source of the river Atrato, which flows into the Gulf of Darien, with the river St. John, that flows into the Pacific. This connection was effected the latter part of the last century, and the use of it forbidden on pain of death, through jealous fears of the Spanish government Of late these lines have been abandoned in favor of a fourth, viz.: that of Porto Bello to Panama. The soil or rather climate of Porto Bello is so unpropitious to agriculture, that the scanty and squalid population find it difficult to procure the means of subsistence.

Upon examining two Spanish maps, published at Madrid in 1809 and 1817, one gives the distance across the isthmus, from Mandingo Bay, as about five leagues, and the other eight; while the distance at Porto Bello is given as upwards of fourteen.

It is in comparison with this route from Porto Bello particularly that we would draw the attention of the public to that of the Mandingo; the testimony of all the traders along the coast, of many years experience, has been given in favor of the latter. The superiority of this locality admitted, and there remains nothing to prevent its being put in competition with the others, but the well-founded report that the San Blas Indians will not permit such an enterprise to be commenced in their territory—a territory which the Spanish monarch and his republican successors have claimed as theirs, prescribing vexatious restrictious on the trade of the coast. As for the acquiescence of the Republic of New Grenada, which claims sovereignty over the San Blas country on a plea of heritage, though they never had possession, there is little doubt it could be obtained by purchase.

The San Blas Indians are naturally jealous of what is likely to endanger their independence—a guarantee of which must be given before any route for trade, through their country, will be permitted. If the business is rightly set about, there is no doubt that the repugnance of these Indians can be overcome, and the use of their country permitted for the construction of a work which cannot fail greatly to enhance its value.

The British government has long extended its protection over the Mosquitia Indians, in whose territory they have a Consul-General; and as the character of those of San Blas is quite as proverbial for industry, courage, and integrity, a like attention from our government might secure to us commercial advantages of great value. Their only trade at present is with Jamaica, and such is the patriarchal character of their government, that it has preserved them hitherto from the effects of that contact which has ruined most of the North American tribes. A course of trade through their country might introduce intemperance among them, therefore it would be necessary for us to establish such regulations as have been long in use on our Indian frontier, to preserve the red man from the demoralization which has too often ensued from his contact with the white.

Our enterprising countryman, William Wheelwright, Esq., (who has been many years engaged in establishing steam-packet routes about the Pacific,) in a paper, read before the Royal Geographical Society of Great Britain, states that Chagres is the only river of any magnitude, to be found between the Gulf of Darien and the river San Juan de Nicaragua,

which, after receiving several confluent streams, discharges its waters into the Atlantic ocean; while the rivers Chavera and Grande, immediately opposite, and falling into the Pacific, have their sources interlocked with those of the Chagres and its tributaries. These leading features seem to afford almost conclusive evidence that the level here is most complete, and that the natural advantages for connecting the two oceans, are much greater than at any other part of the isthmus. Mr. Lloyd's report and maps are the only scientific evidences we can obtain in relation to this matter. It does not appear that he traversed the line he laid down, but he doubtless observed it from the elevations which he ascended. His levels were undertaken with the view of ascertaining the comparative height of the two oceans. His statements, containing his observations and calculations, are deposited among the archives of the Royal Society.

In tracing the route between the rivers Chagres and Panama or Chavera, it is necessary that we commence by examining the bar of Chagres and the adjacent coast. Mr. Lloyd proposed that a canal should connect this river and Lemon Bay, and thus avoid the bar. It is certainly capable of being made an excellent outlet. A nearly level line exists in this part of the isthmus, and there is no height of consequence to be overcome, in effecting a communication here, between the two oceans, either by a railroad or canal. Before so vast an undertaking as the opening of a great ship-canal can be commenced, it is necessary that a road be made as near the level line as possible, both with a view to ulterior labors, which such a road would greatly facilitate, and for the immediate establishment of an intercourse between the two oceans.

The canal must be sufficiently wide for ships of the largest size to pass each other freely in its channel. It must not be cramped with questions of expense, but laid out on a scale commensurate with its importance, and the age in which it is effected.

If we are not deceived, the level is so complete that it would only be necessary to have locks at either end, while its total length would not exceed thirty miles. The Chagres could be made its feeder, but the elevation of the Pacific (13¼ feet) above the Atlantic, would probably render the canal independent of any tributary streams.

No really scientific research has as yet been made towards the realization of the object in view—an object which, when attained, will produce some of the most extraordinary results that the combined intelligence, wisdom, science, and energy of man are capable of effecting.

## Art. VII.—LAW OF DEBTOR AND CREDITOR IN LOUISIANA.

### LOUISIANA LAW ON THE SUBJECT OF "RESPITE."

The articles in your valuable Magazine upon the "Law of Debtor and Creditor in Louisiana" have failed to call the attention of your readers to a great and important peculiarity of the civil code affecting the enforcement of civil obligations, as vitally important to the interests of the commercial public as those which have been already considered; I allude to the subject of Respite, a branch of Louisiana law intimately affecting many of the mercantile relations between this city and New York, and one which is probably quite unknown to the greater part of your readers.

*Respite* is defined by the Louisiana Code, art. 3,051, to be "an act by which a debtor, who is unable to satisfy his debts at the moment, transacts with his creditors, and obtains from them time or delay for the payment of the sums which he owes to them."

There is a further definition of *voluntary* and *forced* respite. It is voluntary, when all the creditors consent to the proposal which the debtor makes to pay in a limited time the whole or a part of his debt. It is forced, when a part of the creditors refuse to accept the debtor's proposal, and when the debtor is obliged to compel them by judicial authority to consent to what the others have determined in the cases directed by law. The voluntary respite needs no comment whatsoever. The stipulations which all the creditors choose to make with their debtor, can of course do mischief to no one; they may act together and unanimously in this or any other like contract as to them may seem good, but it is when the acts of two creditors may control the interests and rights of a third creditor, that the subject becomes one of serious importance, and the forced respite is a proceeding touching not only the parties who agree but those also who do not agree to its terms. "It takes place," says the code, "when the creditors do not all agree, for then the opinion of a majority in number and in amount prevails, and the judge shall approve such opinion, and it shall be binding on the other creditors who did not agree to it." Thus, for instance, if a merchant in New York entrusts to a merchant in New Orleans goods to the amount of one thousand dollars, taking a note payable at the latter place, say in one year, and the New Orleans merchant has two other creditors in this city, to each of whom he owes five hundred and one dollars, these two creditors, forming a majority in number and amount, may elect, under certain forms hereafter to be mentioned, to allow to the debtor three years to pay the two thousand and two dollars which he owes; and the New York creditor, although he may wholly dissent from such a disposition of his debt, must quietly submit.

We will pursue the rules of this law, as laid down in the code, and afterwards make some general remarks as to the extent to which they have been carried by adjudicated cases.

In order that the respite may take place, it is necessary—

1. That the debtor should deposit in the office of the clerk of the court of his domicil, to whom he presents his petition for calling his creditors, a true and exact schedule, sworn to by him, of all his movable and immovable property, as well as of his debts.

2. That a meeting of the creditors of such debtor, domiciliated in the State, shall be called on a certain day at the office of a notary public, by order of the judge; at which meeting the creditors shall be summoned to attend by process issued from the court, if the creditors live within the parish where the meeting shall take place, or by letters addressed to them by the notary, if they are not residing in the parish.

3. That the creditors be ordered to attend in ten days, if they are all living in the parish of the judge who gives the order; and in thirty days, if there are some of them residing out of the parish.

4. That this meeting, as well as its object, be advertised in English and in French, by papers posted up in the usual places; and also by three publications in English and French in the newspapers, if any be printed within the extent of the jurisdiction of the judge who grants the order.

5. That the creditors explain exactly the amount of the sums which

they claim, and make oath before the notary holding the meeting, that they are justly and lawfully due.

The creditors who do not make this oath, shall not have the right of voting, and their credits shall not be counted among those by which it is to be determined whether the respite is granted or not.

Absent creditors, and who are not domiciliated in the State, are not, in any case, summoned to the meeting. They are to be represented by an attorney, whom it is the duty of the judge to appoint for them.

The duties of that attorney are confined to establishing, as far as possible, the debts of the absentees, and to seeing that the proceedings are conducted legally; he cannot grant anything in the name of the persons whom he represents.

Thus it is seen that the first notice which a New York creditor may receive of the fact that his debtor in New Orleans is moving for an extension of time for the payment of his debts, is from a notary's letter; and such notice makes him, whether he will or no, a party to the proceedings.

The property of the debtor is not hypothecated, by reason of the respite, for the payment of the mass of the debts, unless the respite has been granted on the express condition that this hypothecation shall exist.

But the creditors who are obliged to abide by the will of the majority, may require that the debtor shall furnish security, that the property of which he is left in possession shall not be alienated; or, in case it is, that the money arising from the sale shall be employed in paying the debts existing at the time of the respite.

The following classes of persons cannot be compelled to enter into any contract of respite:—

Privileged creditors, of what nature soever their privileges may be, and creditors who have a special mortgage by public act.

Minors, for the balance of account of their tutorship or curatorship.

Wives for their dotal rights, or for that of reclaiming their property.

Therefore, the privileged creditors, and those who have a special mortgage as aforesaid, cannot be deprived by any respite, though agreed to by three-fourths of the creditors in number and in amount, of the right of seizing the property on which they have a privilege; but if such property do not prove sufficient to satisfy their debt, they shall be restrained from acting for the surplus, either against the person of the debtor, or against those of his effects on which they have no privilege, except after the expiration of the term granted by the respite.

But creditors having a general mortgage are bound by the respite, in the same manner as ordinary creditors.

The time allowed to a debtor in a forced respite, cannot exceed three years; and if the creditors of the three-fourths in number and in amount, have granted to him more time, the creditors who are opposed to the respite, may cause this delay to be reduced to the legal time, saving to the debtor the right, when it shall be expired, to call again these creditors in order to obtain a new delay, which, in this last case, shall be granted only if all these creditors unanimously consent to it.

Any one who has claimed the benefit of the cession of goods, cannot afterwards pray for a mere respite.

When the creditors refuse a respite, the cession of property ensues; and the proceedings continue, as if the cession had been offered in the first instance.

Until the year 1843, it was the law in Louisiana that no respite could be granted, unless three-fourths of the creditors in number and amount agreed to it. In that year a statute was passed reviving the State insolvent laws, which had been in force prior to the national bankrupt act, and at the end of this statute there is a clause providing that the article 3,053 of the civil code be so amended as to read, "majority instead of three-fourths." This is the article (3,053) regulating respite; no reference is made to the subject matter in the statute of 1843, and it might not be hazardous to declare that some of the members of the legislature were not at the time aware of the important alterations they were making.

But, says the New York lawyer, is not this, your law of *respite*, virtually an insolvent law? How can it affect the New York creditor, who, refusing to be bound by its rules, seeks to enforce a judgment in the Circuit Court of the United States? Would not that court decide respite to be unconstitutional, as impairing obligations, and as having no weight or binding effect upon those out of the State? These questions have been touched upon by the United States' Supreme Court in 10 *Peters*, 283, *M. B. Haydell, plaintiff in error*, vs. *François Girod*; and in 7 *Peters*, 413, *Breedlove and Robeson* vs. *Nicolet and Sigg; but they have not been decided.* The points were made, but the court found it easy to decide the cases upon other grounds. Our State courts have examined these questions, and given their construction, that the laws relative to respite are not insolvent laws.—3 *Robinson's Reports*, 407, *Anthony Rasch* vs. *His creditors.* The debt sued for in this case was payable in Louisiana, but contracted in Mississippi, and the opponent was a resident of the last named State. The petitioner resided in New Orleans. The court in its judgment refers to the opinion of Pothier upon the definition of respite, who says it is to be considered as "a question of equity, as it is not just that the rigor of some creditors should prejudice the interest of all." "Here," continues the court, "the petitioner seeks no discharge from his obligations, nor does he wish to impair their validity. He only says, I cannot pay you now without ruin to myself and injury to you and my other creditors, but give me time and all will be paid. We do not see that the granting so reasonable a demand is unconstitutional."

The Supreme Court of the United States would probably construe the laws of this State as our Supreme Court has construed them, though the door is a wide one to immense frauds. The one creditor may be compelled to wait three years, *without interest*, at the will of two creditors in collusion with the debtor. If the creditor objects to the law and seeks to set it aside, he is told that the rule is of the *form* only, and touches not the construction of his contract; or touches only to retard its payment, not to impair its obligation. It was the rule when he took the obligation, and, in matters regarding the enforcement of it, he is to abide by the terms of such rule. It may be, that the debtor in New Orleans owes ten thousand dollars to the New York merchant who has sold him merchandise, and owes ten thousand and one dollars to his father and brother; they, members of his family, of course agree to the respite, and the New York merchant has only to regret that he had not read something of Louisiana law before he entrusted his means to such unfortunate dispositions.

In some cases doubtless the operation of the law would be just and excellent. The crops of the planter, at the moment of harvest-home, are swept by the *ouragon* or the *crevasse*, and he finds himself on the instant,

though abundantly solvent, deprived of the power of meeting his present engagements. He calls his creditors together, lays the situation of his business affairs all open, a majority agree to grant a respite, and he is saved from the ruin which an immediate judgment and execution would bring upon him. The merchant, too, finds his present means crippled by the loss of his richest ship, and the refusal of an insurance office to pay without a suit: he may bless the equity of that law which prevents the rigorous creditor from driving him into bankruptcy.

# MERCANTILE LAW CASES.

[We are indebted to C. Bryan, Esq., of Akron, Ohio, for the following decisions in the Courts of that State, on points important to mercantile men.]

### LETTER OF CREDIT.

When a letter of credit is addressed to a particular firm, no one else can rely on it as a guaranty.

The vender of a bill of goods, upon the faith of a letter of credit, must give notice at once to the guarantor, or he will not be liable.*

### BILLS OF EXCHANGE.

The holder of a bill of exchange, drawn by a person living in one State, upon a citizen of another State, is relieved by the statute of Ohio from the necessity of procuring a notarial protest, except for the purpose of recovering the statutory damages.†

Such bills are so far foreign bills under our statute, that the notarial protest is received as evidence of the facts stated in it. The holder may treat them as foreign, by having them regularly protested,—which entitles him to 6 per cent damages, over and above principal and interest; or as inland, and make his proof of demand and notice.‡

A promissory note, payable to a person or bearer, is negotiable by delivery, without endorsement. But a sealed bill or note in the same form, is negotiable only by endorsement.§

The mere endorsement upon a note, of a stranger's name in blank, is *prima facie* evidence of guaranty.‖

To charge such a person as *maker*, there must be proof that his endorsement was made at the time of execution by the other party; or, if afterwards, that it was in pursuance of an agreement or intention that he should become responsible from the date of the execution. Such agreement or intention may be proved by parol, and the rule is the same whether the instrument be negotiable or not.

### COMMON CARRIERS.

Proprietors of stage coaches are common carriers, and their liabilities cannot be limited by actual notice to a traveller that his baggage is at his own risk.

A watch is part of a traveller's baggage, and his trunk is a proper place to carry it in. Whatever forms the necessary appendages of a traveller, may be legitimately considered as baggage, and placed in his trunk for conveyance. However valuable an article of baggage may be, the owner is not bound to disclose such peculiar value to the carrier, unless inquiry be made.¶

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* Taylor et al. *vs.* Wetmores, 10 Ohio, 490.
† 10 Ohio, 496.
‡ 10 Ohio, 180, Case *vs.* Heffner.
§ 14 Ohio, 542.
‖ 13 Ohio, 239.
¶ 10 Ohio, 145, Jones *vs.* Voorhees.

### COMMERCIAL COURT, MEMPHIS, TENN.—COMMERCIAL GUARANTEES.

A case of some interest to the mercantile community, was recently (December, 1846,) tried in the Commercial Court, at Memphis, Tennessee. The questions raised were upon the doctrines of commercial guarantees. A house at New Orleans shipped to this place goods for a merchant formerly in business here. The goods upon their arrival were detained by order of the sellers, until the purchaser should obtain a friend to guarantee payment of them. The guaranty was procured in writing. Its terms were substantially—"We understand Mr. H. J. proposes to do some business with you in the way of groceries, &c. We will be responsible with him for any contract he may make with you of this kind"—and it was addressed to the sellers. Testimony was given unnecessary here to detail.

The questions chiefly discussed were, whether notice of the acceptance of the guaranty was given to the guarantor—whether such notice was necessary to fix his liability—and whether it was necessary before seeing the guarantor, to give him notice of the default of the principal debtor to pay.

For the plaintiff it was insisted—that this was an absolute guarantee, not a mere proposal or overture to become guarantor—that notice of acceptance is only necessary in the case of a proposal or overture, not in the case of an absolute undertaking—that where the proposition or requisition of guaranty proceeds from the creditor to the guarantor, and thereupon the guaranty is given, notice of its acceptance is not necessary—that the omission of the creditor to give the guarantor notice of the default of the principal debtor to pay, is material only where such omission works an injury to the guarantor, and is not a pre-requisite to the right of action by the creditor against the guarantor. To sustain these positions of the plaintiff, were cited numerous British authorities and several recent decisions in the State of New York.

For the defendant it was argued—that there was no proof of notice given to the guarantor, either of the acceptance of the guaranty or of the default of the principal debtor to pay—that in regard to the necessity of notice, the distinction taken for the plaintiff between absolute guarantees and overtures, was unsound—that in all cases of guarantees of debts to be subsequently contracted, notice of the acceptance of the guaranty must be given to the guarantor in reasonable time, otherwise he will not be fixed with liability—and that notice of the principal debtor's default to pay, must be given to the guarantor, as a pre-requisite to a right of action against him.

Several cases in the Supreme Court of the Union were cited on the part of the defendant, and it seemed to be agreed, that these cases hold in regard to guarantees of debts to be subsequently created, that notice to the guarantor of the acceptance of his guaranty, is indispensable to fix his liability.

Verdict went for the plaintiff, and mainly, it seemed, upon the ground that where the proposition for the guaranty proceeds from the creditor to the guaranty, therefore he gives the guaranty; notice of its acceptance from the creditor to the guarantor is unnecessary. Certainly it is prudent in the creditor, in all cases of guaranty, to give notice in reasonable time to the guarantor of its acceptance and of the extent to which it is acted on, and of the default of the principal debtor to pay.

H. G. Smith for the plaintiffs, Blume and Trezevant for the defendant.

### FREIGHT—DELIVERY OF MERCHANDISE.

In the Fourth District Court, (New Orleans,) Judge Strawbridge recently decided, (January, 1847,) in the case of Andrews & Dewey *vs.* Troisgros & Lampre, which was an action brought by the plaintiffs for the recovery of freight upon certain goods shipped from Havre, and consigned to the defendants—that a delivery of goods upon the levee, with notice to the consignee, was a sufficient delivery; and from the time of such discharge by the ship, the goods were at the risk of the consignee. Judgment accordingly.—Counsel for plaintiffs, Samuel C. Reed, Jr., Esq.; W. S. Upton, Esq., for the defence.

# COMMERCIAL CHRONICLE AND REVIEW.

FEATURES OF COMMERCIAL AFFAIRS SINCE OUR LAST NUMBER—INFLUENCE OF RAILROAD SPECULATIONS IN ENGLAND—CONSUMPTION OF FOOD—BANK OF ENGLAND—BANK OF FRANCE—CONDITION OF IRELAND—FOOD IMPORTED INTO ENGLAND FOR LAST THREE YEARS—EXPORTS OF BRITISH MANUFACTURES FOR LAST THREE YEARS—STATE OF COTTON TRADE OF GREAT BRITAIN FOR FIVE YEARS—BRITISH EXPORT OF CALICOES, PRINTS, AND YARN, FOR FIVE YEARS—THE COTTON CROP—BULLION IN THE BANK OF ENGLAND—COMMERCIAL PROSPERITY OF THE UNITED STATES—INFLUENCE OF THE WAR ON FINANCIAL AFFAIRS—AFFAIRS OF THE UNITED STATES TREASURY—LOANS—IMPORT OF SPECIE—POPULARITY OF THE WAREHOUSING SYSTEM OF THE UNITED STATES—FORMS ADOPTED, ETC., ETC.

FINANCIAL and commercial affairs, since the date of our last, have evinced, in a more marked degree, the features which had been prominent for some previous months. Events in Europe are approaching a crisis, fraught with the most important consequences. In former numbers we have alluded to the great influence which the railroad mania of past years has exercised upon the condition of the people, and the results that influence has produced in extending employment, and enhancing the means of those whose share of the comforts and necessaries of life has hitherto been small. The modification of the English taxes, in 1842, and subsequently, was designed, according to the avowal of the government, to throw the burden of taxation upon property, and to relieve labor, by cheapening the prices of the articles it consumes, as food and other necessaries. This object has apparently been effected in England, as the large imports of foreign articles of food, besides grain, would show. Coming in aid of this, has been the large railroad expenditures, not only in Great Britain, but throughout Europe. The railroads, by their facility of intercourse, as well as through the direct payments made on their account, by governments and capitalists, to the laborers, have greatly improved the condition of the lower classes, and powerfully stimulated the consumption of food. In ordinary times, the effect of these measures would naturally be displayed in an increased demand for, and an advance in the prices of, food. It so happens, however, that simultaneous with this increased consumption, the crops of some of the coarser grains of the western states of Europe have been deficient, and in Ireland, a most awful visitation has overtaken the people, through the failure of the potato crop, on which millions of the wretched inhabitants depend alone for subsistence. The general effect of these circumstances has been, to compel very large purchases of food from eastern Europe and from America, and consequently, as is always the case in an unusual business, to disturb that financial repose which for so many years has been manifest, by causing important currents of the precious metals to set out of the customary channels for their employment. These events naturally would cause disquiet, but are aided by the enormous speculation in railroad shares. In the early fall a revulsion took place, which caused a great demand for money, and a rise in the rate of interest, in the cities of the north of Europe. In our January number we quoted the rates of interest on the continent, remarking that discrepancies so great could not continue long. As, for instance, when money is worth 5 to 6 per cent in Amsterdam and Antwerp, the Bank of France could not continue to discount at 4 per cent, without losing its specie; be-

cause it afforded a profit of 1 to 1¼ per cent to German bankers to borrow money in Paris and reloan it in those cities; nevertheless the Bank continued to discount at that rate, until the low state of its bullion admonished it to raise the rate to 5 per cent—which was done in January. This would check the demand for re-discounts, but would not affect the export of silver for corn, the extent of which it is difficult to determine. The Count Darne estimated that the wants of France would be 44 days consumption, or 10,000,000 hectolitres, equal to 28,000,000 bushels, and worth $45,000,000. Of this, one-half was supposed to have been purchased, and consequently the remaining demand for corn would be at least $20,000,000. In this state of affairs, the whole of the bullion in the Bank of France would be absorbed. The amount held by it had fallen from 200,000,000 francs, in October, to 60,000,000 in January, when it obtained 20,000,000, in silver, from the Bank of England. If the estimates of the wants of France are correct, this whole sum will by no means suffice for the purchase of corn. Nevertheless the king, in his speech, stated that the public works would be continued by the government, an announcement that in some degree reassured the markets. In England, great fears of a revulsion were entertained, because of the difficulties in Ireland, and because of the wants of the continent, and attempts were made to run a parallel between the state of affairs now and that of the commencement of 1839. Independent of Ireland, the state of English affairs was never more sound. Its large imports of the necessaries of life grow out of the prosperity of the people, and do not arise from their distress, as in 1839. In January, 1839, the price of wheat in England was 79s. The highest point it has touched this year is 66s. 10d., or 17 per cent lower than in 1839. The consumption of foreign breadstuffs, in 1846, has not been greater than that of other necessaries. The quantity of food imported for eleven months, ending Dec. 5, has been as follows:

FOOD IMPORTED INTO ENGLAND, FOR CONSUMPTION, IN ELEVEN MONTHS.

| | 1844. | 1845. | 1846. |
|---|---|---|---|
| Live animals,.....No. | 7,773 | 28,685 | 122,458 |
| Bacon,.....cwt. | 29 | 49 | 1,691 |
| Beef, salt,..... | 101,238 | 73,249 | 161,759 |
| Butter,..... | 169,096 | 225,903 | 230,623 |
| Cheese,..... | 194,560 | 241,130 | 288,623 |
| Hams,..... | 3,461 | 2,926 | 7,857 |
| Pork, salt,..... | 25,755 | 34,807 | 46,934 |
| Rice,..... | 314,466 | 289,767 | 309,622 |
| Raisins,..... | 173,356 | 181,701 | 215,819 |
| Sugar,..... | 3,871,081 | 4,637,441 | 4,887,527 |
| Molasses,..... | 569,359 | 587,899 | 542,010 |
| Total,..... | 5,442,701 | 6,274,822 | 6,692,465 |
| Cocoa,.....lbs. | 2,438,373 | 2,401,587 | 2,735,565 |
| Coffee,..... | 28,964,277 | 31,789,128 | 33,680,812 |
| Pepper,..... | 2,807,639 | 2,972,416 | 3,001,945 |
| Tea,..... | 38,291,073 | 40,956,448 | 43,408,729 |
| Tobacco,..... | 22,427,140 | 23,877,127 | 24,502,321 |
| Total lbs..... | 94,928,502 | 101,896,706 | 107,329,372 |
| Grain,.....bushels. | 18,792,448 | 8,842,736 | 31,075,888 |
| Flour,.....bbls. | 387,115 | 327,546 | 1,899,667 |
| Bullion in bank, end of each year, | £14,828,416 | £13,325,886 | £14,951,550 |

This is an extraordinary result. The consumption of all these articles has increased prodigiously, and with that increase the amount of bullion in the Bank, large as it was, continued to swell in volume. It is observable that those articles which are luxuries were consumed in a greater degree than even necessary food. The exports of manufactures, in the same period, have been as follows, according to the declared value at the place of export :—

| | 1844. | 1845. | 1846. |
|---|---|---|---|
| Cotton goods,..... | £17,450,264 | £17,673,469 | £16,285,652 |
| " yarn,..... | 6,680,329 | 6,614,854 | 7,512,257 |
| Hardware,..... | 1,996,031 | 1,978,014 | 2,003,597 |
| Iron and Steel,..... | 3,031,080 | 3,248,415 | 3,936,207 |
| Linen goods,..... | 2,790,274 | 2,741,065 | 2,561,234 |
| Woollen,..... | 7,687,160 | 7,099,676 | 5,851,253 |
| Other,..... | 7,647,205 | 10,095,532 | 8,481,888 |
| Total,..... | £47,312,343 | £49,451,025 | £47,632,088 |

These are the export values, and with this diminished export and enhanced import, exchanges were maintained to the close of the year, so as not to affect the export of coin. There is nothing in this state of affairs to lead to any great apprehensions for the coming year. The situation of Ireland is indeed awful, but if its inhabitants get food to eat, it must be at the expense of the British government, and purchased of the United States. The state of the exchanges between the United States and England is, and has been, such as to make the payment of large sums of specie necessary to the purchase of food. This is favorable to every interest of the United States, except cotton, which, in usual years, is found to be unfavorably influenced by the rise in food. The past six months is, however, an exception, inasmuch as that cotton has improved in common with food. It appears, nevertheless, that the consumption of cotton in England has declined. The following is a condensed statement of the cotton trade of Great Britain, for several years :—

| | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|
| W't of yarn, spun, lbs. | 345,751,444 | 437,589,441 | 445,577,490 | 484,766,487 | 495,033,109 |
| " " exported.. | 268,352,474 | 322,841,410 | 323,362,810 | 336,866,327 | 354,291,740 |
| Consumed in G. Br'n, | 77,398,970 | 114,748,031 | 122,214,670 | 157,900,160 | 140,741,360 |

These returns, which are from "Burns' Glance," indicate that the consumption, though less last year than in 1845, was double that of 1842! The particulars of the exports were as follows :—

| | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|
| Plain calicoes, y'ds... | 366,040,519 | 520,941,635 | 569,677,792 | 613,138,645 | 618,830,181 |
| Prints..... | 236,012,641 | 257,287,304 | 313,111,445 | 310,850,697 | 267,084,797 |
| Yarn,.....lbs. | 136,537,162 | 149,214,437 | 133,901,913 | 131,937,935 | 157,130,025 |

The consumption of cotton last year was near 500,000 bales in excess of the receipts, reducing the stock to that extent. Should the same degree of consumption take place this year, with a United States crop of 2,000,000 bales, the stock will be *entirely exhausted* before its close. Hence, to preserve the present stock, which is as small as is safe, a diminution of consumption, to the extent of 500,000 bales, *must* take place. How is this to be effected? At the close of the year 1838, the stocks of cotton in the ports had considerably increased, and, alarmed by the cry of short crops, spinners had laid in stocks ahead. One spinner laid in

a three year's stock, at the rate of 10,000 bales per annum; being enabled to do so by the large crop of 1838. Notwithstanding that, and an average price of 72s. for wheat, throughout 1839,—accompanied by a great financial revulsion,—the reduction of the Bank of England to the point of bankruptcy, and the final ruin of the United States Bank, the consumption of cotton in England was reduced only 150,000 bales. The highest point which wheat has yet touched this year is 67s., and all the people of England who consume cottons, are well employed by rail-roads and other means. Ireland consumes but little cotton. The cost of cotton cloth does not advance in the same proportion as the price of the raw material. How high, therefore, must the price of cotton rise to diminish consumption 30 per cent? It is evident that a short supply must take place, even if the crop reaches 2,100,000 bales. The falling off in the crop, this year, is in the heavy bales of the Mississippi. According to the proportion received, and the weights of last year, the weight of cotton will be as follows:—

| | | | |
|---|---|---|---|
| 1845–6 crop,.....bales | 2,055,713 | .....lbs. | 905,880,739 |
| 1846–7 ..... | 2,000,000 | ..... | 859,756,000 |

Hence, 2,110,000 bales would but equal the weight of last year.

Under all these considerations, to which we have but alluded, it follows that Great Britain must buy largely, and pay well for what she buys, as well farm produce as cotton; and as exchanges are largely in our favor, considerable sums of specie, in addition to the $3,000,000 already received, must arrive. All that England loses will probably come here, and a collapse in English credits is now comparatively of small importance on this side of the Atlantic. It will, indeed, affect speculative prices to some extent; but in former years, more particularly 1837 and 1839, a large portion of the business done here depended on credits centering in London, and was the first portion thrown off by the bank; out of the broken credits of those years has grown present security. The business of the United States, with England, is now on a cash basis. A great institution, like the late National Bank, is not now dependent upon the favors of foreign banks, not only for its ability to meet its present payments, but for its very existence. We have large and surplus products, which England must have, and which she must pay for. When her currency is full, prices may rule somewhat higher than when money is scarce; but when the demand is urgent and effective, a raising of the rate of interest and security will not affect prices. A singular instance of this was apparent in 1838, '39. In November, 1838, the bullion in the Bank of England was £10,000,000, and the price of wheat, 69s. It fluctuated from 69s. to 78s. throughout the year, during which the bullion diminished to £2,250,000, and the rate of interest rose from 3 to 6 per cent. All the efforts of the bank could not diminish the price, or check the import of grain, until the supply was enhanced at home. Such a position is now occupied by all American produce. To whatever extent Great Britain must have produce, she must pay, and pay liberally. The vast capital that she has garnered up from all quarters of the world, through centuries of prosperity, she must expend for food, because she has misgoverned a nation until starvation for the many seems imminent.

The external commerce of the country being thus prosperous, with high prices for all descriptions of the products of industry, the shipping never before so actively nor so profitably employed, and money pouring in from abroad, the future is indeed bright, as far as commercial and industrial interests are concerned.

The continuance of the war, manifests its adverse influence in financial affairs only, through the means adopted by the government to obtain extraordinary supplies for the Treasury. We have, in a previous number, referred to the loan bill; but as it has since become effective, we may remark upon the nature of its operation. The law allows the issue of $23.000,000 of notes, to bear not more than 6 per cent interest, to be redeemed at the Treasury, after one or two years, or to be funded, at *any time* presented by the holder, in a 6 per cent stock, semi-annual interest, redeemable in 1867, and transferable at the Treasury; the interest on the *notes* to cease at sixty days notice. The $5,000,000 notes outstanding, under the act of July, 1846, are put on the same footing. The notes may be paid out at par, to creditors, at their option. They may also be pledged for money, at par. When returned to the Treasury, others may be issued in their place. Instead of issuing these notes, the Secretary is authorized to issue the 6 per cent stock redeemable in 1867. The power to issue notes, is to cease in six months from the date of a treaty of peace with Mexico. The proceeds of the public lands are appropriated, after 1847, to the payment of the interest on the debt thus created; and if there is any excess of avails, it is to be applied to the purchase of the notes, or stock, at par.

Under this law, the department borrowed money at par, on $5,000,000 of notes, payable in specie, either in New Orleans or New York; and, on the 9th of February, advertised for the remaining $18,000,000 on Treasury notes, at 6 per cent interest, payable semi-annually. The effect of this movement was adverse to the market value of the old stock. It had been supposed that the notes would be issued at a low rate of interest, and of small denominations, depending upon the custom-house demand to support their value. In this view, they were regarded as a currency, the effect of which would be rather to enhance the abundance of money than otherwise. The high rate of interest at which they were put out, however, changed their character to that of a means of drawing money from those reservoirs where it usually accumulates, for purposes of discount. This would naturally be the case where they can be had at par; inasmuch as that those sums of money that lie usually in bank, on deposit, applicable to the payment of duties, would rather be applied to the purchase of notes, drawing 6 per cent interest, and available for the same purpose.

The arrival of a large sum, near £400,000, ($2,000,000,) by the Hibernia, caused some increased abundance of money, which, however, again became more difficult to be obtained, unless for the best security. The imports have by no means been so large as was anticipated under the new tariff. The Secretary of the Treasury, in a reply to certain resolutions of the Senate, in relation to such articles as would yield a larger revenue at higher duties, gave a table of the duties received at five cities for the first fifty-five days of the new tariff. The result was, receipts of $3,730,117, against $3,029,457, last year, an excess of $700,669. It is probable, however, that a portion of this increase was owing to the warehousing of large quantities of goods under the old tariff, to be taken out under the new.

The warehousing process is rapidly growing in popularity, and will afford the greatest facilities to merchants of small capital. The extensive buildings erected in Broadway by the government, and supposed to be extensive enough to hold all the bonded goods, are proved to be very insufficient for that purpose.

There is a warehouse bureau in the custom-house, under the direction of D. P. Barhydt, Esq. In this bureau are kept ten large ledgers, in which are recorded all the particulars of each package of merchandise in warehouse. These packages require an endless variety of descriptive particulars, all of which require to be entered alphabetically; and from these, are made up the quarterly statistical report, required by law.

When goods are entered for warehouse, an entry certificate is made out, as follows:—

CUSTOM HOUSE, NEW YORK, Collector's Office, September 6, 1846.

WAREHOUSE ENTRY.

*Entry of merchandise imported on the 2d day of September, 1846, by William Wilson, in the ship Roscoe, Delano master, from Liverpool.*

| Marks. | Nos. | Packages and contents. | Quan'y. | 20 per c't. | 25 per c't. | 30 per c't. | 100 per c't. | Total. | Dutiable val. each package. |
|---|---|---|---|---|---|---|---|---|---|
| (B) | 1 | 1 cask brandy | 90 gal's. | .. .. .. | .. .. .. | .. .. .. | £90 .. .. | £90 .. .. | |
| | 2 | 1 case linens, 50 pieces | 1,250 yds | £62 10 .. | .. .. .. | .. .. .. | .. .. .. | 62 10 .. | |
| | 3 | 1 case cloths, 2 pieces | 35 yards. | .. .. .. | .. .. .. | £17 6 .. | .. .. .. | 17 6 .. | |
| | 4 | 1 case merinoes | 21 p'ces. | .. .. .. | .. .. .. | 42 .. .. | .. .. .. | 42 .. .. | |
| | 5 | 1 case cambric dimity | 300 p's. | 60 .. .. | .. .. .. | .. .. .. | .. .. .. | 60 .. .. | |
| | 6 | 1 case printed muslins | 50 p'ces. | 37 10 .. | .. .. .. | .. .. .. | .. .. .. | 37 10 .. | |
| | 7 | 1 case Gros de Naples, 20 p. | 600 p's. | .. .. .. | £60 .. .. | .. .. .. | .. .. .. | 60 .. .. | |
| | 8 | 1 crate earthenware | per inv'e | .. .. .. | .. .. .. | 10 .. .. | .. .. .. | 10 .. .. | |
| | 9 | 1 trunk clothing | per inv'e | .. .. .. | .. .. .. | 50 .. .. | .. .. .. | 50 .. .. | |
| | 10 | 1 demijohn cordial | 5 gallons | .. .. .. | .. .. .. | .. .. .. | 10 .. .. | 10 .. .. | |
| | | | | 160 .. .. | 60 .. .. | 119 6 .. | 100 .. .. | 439 6 .. | |
| | | Inland trans'n & ship'g ch's | | 1 6 .. | .. 6 .. | 1 2 .. | 1 .. .. | 3 14 .. | |
| | | | | 161 6 .. | 60 6 .. | 120 8 .. | 101 .. .. | 443 .. .. | |
| | | Commissions 2½ per cent | | 4 0 8 | 1 10 2 | 3 0 2 | 2 10 6 | 11 1 6 | |
| | | | | 165 6 8 | 61 16 2 | 123 8 2 | 103 10 6 | 454 1 6 | |

WILLIAM WILSON.

If a part of this invoice is to be withdrawn, an entry is made, as follows:—

CUSTOM-HOUSE, NEW YORK, Sept. 26, 1846.

*Entry of merchandise intended to be withdrawn from warehouse by Henry Thomas, for transportation to St. Louis, which was imported into this district on the 2d Sept., 1846, by William Wilson, in the ship Roscoe, whereof Delano was master, from Liverpool.*

| Marks. | Nos. | Packages and contents. | | | |
|---|---|---|---|---|---|
| (B) | 5 | One case cambric dimity | 300 pieces | £60 | |
| | | Charges | ..... | 0 | 12 |
| | | Commissions | ..... | 1 | 10 |
| | | | | 62 | 2 |

£62 2s., equal to $301; at 20 per cent, $60 20.
Amount of duties, $60 20.

HENRY THOMAS.

These are called "entry" and "withdrawal certificates," and duplicates are always made out. A new feature has been added, which is, to make three copies of these certificates, and on presenting one of each to Mr. Barhydt, the Register, from them he makes out, and delivers to the importer, a certificate, specifying the goods and packages accurately, the names of the importer and owner, and the dutiable value of the goods. This certificate is transferable by endorsement, and

its presentation is necessary to the release of the described package. It is manifest at once to the business man, that this certificate is of incalculable importance. He, in fact, for all purposes of sale and transfer, carries his invoice of goods in his waistcoat pocket. It is the best possible security for all descriptions of loans, payments, or insurance. The certificate may pass from hand to hand, from importer to jobber, and from one jobber to another, and finally to a country merchant, who may take the case from the custom-house. For one invoice, as many certificates may be issued as there are packages. An importer may divide up, and sell an invoice by certificates, and jobbers may transfer them again to their customers, who may ultimately take out the package—he who buys pays the duty on it. As a matter of security, these certificates must become the most valuable, both to banks and capitalists. They are as secure and as available as mint certificates. We look upon this practical operation of the warehousing system as a new era in the commerce of the country, more particularly that the prosperity of the export trade must be followed by large returns; and the greater the convenience given to the realization of those returns, the greater will be the welfare of all concerned.

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### THE COST OF RAISING WHEAT.

In relation to the interesting subject of the cost of raising wheat in this country, we have received the following letter from an intelligent farmer of the western part of this State, commenting upon a paragraph in the Merchants' Magazine for October, 1846. It will be observed that the writer mistakes the point of our remarks. But we will let our correspondent speak for himself, and then proceed to show the irrelevancy of his statements.

FREEMAN HUNT, ESQ.—SIR: In your Commercial Chronicle and Review, for October last, the following passage occurs:—"The highest authority of the West states that wheat can be delivered in sacks, on the borders of the great lakes, at 16 cents per bushel, free on board, which would make a price of 40 cents in New York, or, allowing a large margin, 50 cents per bushel, free on board, which would be equal to 19 shillings sterling per quarter, and this in quantities which can scarcely be limited."

I do not know to what authority you refer in this passage, but to any one practically acquainted with the cost of raising wheat the statement is certainly incredible. As this is a subject of some interest to the commercial public, and also to our foreign customers, who may be more or less dependent upon us for bread, and as I have had considerable practical acquaintance with the cost of raising wheat on one of the best wheat-growing farms in the best wheat-growing town of this State, I have thought it might not be uninteresting to the readers of your journal to state about the cost of raising a bushel of wheat in the most favored region of western New York.

Since noticing that statement I have visited some of the best and most favored localities of the West, during which I have had pretty extensive opportunities, both from personal observation and intercourse with practical men in the States of Ohio, Indiana, Illinois, Michigan, and Wisconsin, to get information on this subject; and I have no hesitation in saying, that wheat cannot be raised in any considerable quantities, nor in any quantities at all, for 16 cents per bushel. It cannot be raised for less than 35 to 45 cents per bushel. And I think it is very doubtful whether it can be raised to as good a profit in any of these States as in the most favored sections of our own New York.

It appears from the census of this State, that there are but two towns in the State that exceed an average of twenty bushels per acre, and for the State it is considerably less than that; but assuming that amount as an average in the most favored localities, and I am satisfied that there is no section of any considerable extent that will, for a term of years, exceed that amount, either in this or the western States, I propose to state the expense of raising a bushel of wheat, nearly, in New York, from my own experience, and from observation and information derived from practical men of the West. The first item is the interest of the price of the land, which say for New York $50 per acre, $3 50; next ploughing, say twice, at $1 25 per acre, $2 50; then harrowing three times, 25 cents per

acre, 75 cents; seed one and a half bushels per acre, at 88 cents per bushel, $1 31; sowing, 6 cents per acre; harvesting, about $1 50; threshing, one-tenth at twenty bushels per acre at 88 cents per bushel, would be $1 75; then there is drawing to market, which varies very materially according to the distance it has to be carted—my own costs me about 75 cents per hundred bushels, which would be about 15 cents per acre; then there is the wear and tear of teams and utensils of husbandry, which say 25 cents per acre; and I think most practical farmers will sustain me in having put the cost of the different items of expenditure low enough, and we shall have for the aggregate expenditure $11 77, in round numbers $12, which, on an average of twenty bushels per acre, would be 60 cents per bushel nett cost.

At the West, the chief difference in the expense will be found to consist in the difference on the interest of the land, and the less price of wheat for seed; as the ploughing, harrowing, sowing, harvesting, etc., will cost about the same; and then the facilities for marketing are not generally so good in the Western States as they are here—indeed it is not uncommon to find men, even in the State of Ohio, who have to draw their wheat from thirty to fifty miles to market. Where this is the case, so far from being able to put their wheat free on board at 16 cents per bushel, it will cost them more than a moiety of that sum to perform the single item of drawing it to market.

One observation may I think be made which experience will justify:—that with a low price for wheat, say from 40 to 50 cents, in the principal markets, the supply will always be limited; this arises from the supplies which lie at a distance from markets not coming forward, as they never can in any great quantities at such low prices, because the cost of transportation bears so great a ratio to the price received; but when the price rules higher, say from 6 to 7 shillings, the supplies will be abundant, as these prices will enable the holders at distant points to bring forward their whole supplies. The state of facts in last year was an exemplification of these remarks: in the early part of the season prices ruled low and the supplies were limited, but after the advance of prices in September, in consequence of the advices from England, they continued to flow with such an increasing volume, that prices of flour were depressed in New York to a lower point, and for a greater length of time, than were ever before known. W. S.

*Wheatland, Monroe County, N. Y.*

Our correspondent assumes that the wheat culture, in the State of New York, is a criterion for that in the localities to which we alluded, as being able to raise it at 17 cents. The fact of the ability of the lake shores to raise wheat at *fifteen* cents, was established before the American Institute last year. In our article, we said 17 cents, to make a small allowance. The first item in the calculation of our correspondent, of $3.50, for interest, is one to which western culture is not exposed; on the other hand, that amount will buy the land in fee simple, and fence it. The breaking up of prairie land costs $1.75 per acre, and the land is then ready for "sod grain," of which it will produce 20 bushels. The smooth lands of the western lake shores afford facilities for machine labor, that saves great expense in the items of harvesting and threshing, reducing them to half what our correspondent allows, and the item of seed is erroneous, inasmuch as that the quantity of seed corn should be deducted from the product, and the cost averaged upon the balance. Thus, the sum of his items is $11.77; deduct seed corn, $1.31—leaves $10.42, which, on 18½ bushels, is 56 cents, instead of 60. In Wheatland, Monroe county, the residence of our correspondent, the average product, according to the census of 1845, is 22 bushels to the acre, (which would make the cost 51 cents, instead of 60, as he has it,) and yet the population of that town decreased 5 per cent, in 1840 to 1845; and the production of wheat in that town was only 109,000 bushels in 1845, against 106,000, in 1840. It is to be observed that the items of buying land, fencing, and breaking up, are incident to western farming only the *first* year, when the product is 20 bushels, and will cover the expense. After that, the light-ploughing, harrowing, threshing, harvesting, carting, drawing, wear and tear, &c., will, at the outside, reach $4.50 per acre—but we will say $5.00—and 30 bushels will be raised,

from which deduct 2 bushels for seed, and 28 bushels will cost 17 cents each. This is the case with western farming, although our correspondent may be nearly right as to New York wheat. Again, in relation to the cost of wheat on the *river* counties of Illinois, an intelligent farmer, of large experience, stated to a member of the American Institute,* (in reply to a question as to the cost of producing a bushel of wheat in that region,) as follows:—

"To *hire the land and all the culture*, with every expense, it would not exceed, on an average, 30 cents per bushel."

Now, it will be supposed that these facts would produce results. Unfortunately for the State of New York, they have done so. Take the State census for 1840, and point off the eight largest wheat counties, and compare their product and population in 1840, with 1845, as follows:—

| | WHEAT PRODUCED. | | POPULATION. | |
|---|---|---|---|---|
| | 1840. | 1845. | 1840. | 1845. |
| Cayuga | 601,824 | 652,896 | 50,362 | 49,663 |
| Genesee | 911,596 | 1,025,218 | 59,605 | 57,294 |
| Livingston | 823,050 | 821,762 | 35,710 | 33,193 |
| Monroe | 1,074,320 | 1,338,585 | 44,718 | 45,634 |
| Ontario | 770,235 | 918,616 | 43,501 | 42,592 |
| Orleans | 680,202 | 692,127 | 25,015 | 25,845 |
| Wayne | 571,083 | 587,817 | 42,160 | 42,515 |
| Yates | 705,528 | 403,069 | 20,442 | 20,777 |
| | 6,137,838 | 6,441,090 | 321,538 | 317,613 |
| Increase | ..... | 303,252 | ..... | ..... |
| Decrease | ..... | ..... | ..... | 3,935 |

The population for Monroe, excludes the city of Rochester, and Genesee embraces Wyoming. Here is an actual decrease in the population of the great wheat-growing counties of New York. Let us now look at the large wheat-growing counties of Michigan:—

| | WHEAT. | POPULATION. | |
|---|---|---|---|
| | 1840. | 1840. | 1846. |
| Calhoun | 176,630 | 10,599 | 15,749 |
| Cass | 95,101 | 5,710 | 8,078 |
| Jackson | 180,649 | 13,130 | 16,853 |
| Kalamazoo | 161,168 | 7,380 | 10,192 |
| Lenawee | 167,891 | 17,889 | 23,011 |
| Oakland | 264,965 | 23,646 | 30,288 |
| St. Joseph | 191,451 | 7,068 | 10,097 |
| Washtenaw | 216,597 | 23,571 | 26,979 |
| | 1,394,452 | 109,183 | 141,247 |
| Increase | ..... | ..... | 32,064 |

There is no report of the wheat product of Michigan, with the census of 1845, but we may compare the exports of Detroit, St. Joseph's, and Monroe, as follows:—

| | 1841. | | 1846. | |
|---|---|---|---|---|
| | Flour. | Wheat. | Flour. | Wheat. |
| Detroit | 180,000 | 51,000 | 464,092 | 114,397 |
| Monroe | 9,302 | 23,015 | 155,108 | 372,847 |
| St. Joseph's | 68,600 | 90,612 | 129,333 | 235,645 |
| Total | 257,962 | 164,627 | 748,533 | 722,889 |

* See New York Farmer and Mechanic, Vol. IV., p. 138—1846.

Now it is to be observed that the exports in bushels of wheat from those cities were 1,354,137 bushels, nearly equal to the product of the eight counties in 1841. If the exports in 1846 bear the same proportion to their products, the wheat crop of those counties must have increased 2,800,000 bushels, or 200 per cent, in the same time that the product of the New York counties has increased by 5 per cent, and the population decreased. These are the legitimate results of the figures we have pointed out in relation to the cost of wheat at the West. It will be observed that the argument of our correspondent, that low prices failed to call out wheat, holds true of New York; but the prices which did not remunerate the New York farmer, stimulated western production in the manner we have seen, and New York farmers moved West to avail themselves of the difference. The western ports nearly all show similar results. In 1844, Chicago exported, in flour and wheat, 935,000 bushels; and in 1846, 1,458,672 bushels. This large increase has been without internal means of communication, and mostly in seasons of low prices. Last June flour in New York was under $4. Next spring the Illinois and Indiana canals will throw open vast tracts of land, capable of cultivation at the low figures we have named.

# MERCANTILE MISCELLANIES.

## MERCANTILE LIBRARY ASSOCIATION OF MONTREAL.

We have received, with "the compliments of the Board of Directors," the sixth annual report of this flourishing institution, from which we learn that it is entirely free from debt. The library contains 4,209 volumes, and the number of books issued during the year 1846 was 3,900, exclusive of periodicals to the extent of about 500. Of the 446 members composing the association, 340 constantly avail themselves of the library. The increase of these numbers, compared with those of former years, especially in regard to the books issued, is matter of just gratification to the Directors, as furnishing strong evidence of the growing usefulness of the institution. Of the fourteen monthly journals, with which the rooms are supplied, the "Merchants' Magazine" is the only one from the United States. A course of lectures was commenced on the 10th of December. At the previous annual meeting a prize was offered for an essay on "Commerce, its Objects and History." But one essay, only, was submitted; and the prize was awarded to Mr. Alexander Morris. The following gentlemen constitute the Board of Directors, for 1847:—J. H. Winn, President; G. H. Frothingham, Vice-President; S. Lester Taylor, Corresponding Secretary; Robert Lindsay, Recording Secretary; Charles Freeland, Treasurer; Alexander Morris, John M'Gill, David Lindsay, S. R. Evans, John Murray, J. W. M'Glashan, A. M'Donald, D. Busteed, David Muir, A. D. Macdougall, Directors; John Young, Esq., H. E. Montgomerie, Esq., W. C. Evans, Esq., Donald Fraser, Esq., Honorary Directors.

## LAW OF "RESPITE" IN LOUISIANA.

We invite the notice of our readers to the article in the present number, upon Louisiana Law, on the subject of "*Respite.*" We were not before aware, and we doubt if many of our merchants are at all informed, of the existence of such a peculiarity in the jurisprudence of one of our sister States—a peculiarity so deeply affecting their rights and interests, in their creditor relations to the merchants of that State. We hope often to hear from our New Orleans correspondent.

## MERCANTILE LIBRARY ASSOCIATION OF NEW YORK.

The twenty-sixth annual report of this excellent institution has been published, and, as usual, exhibits the affairs of the association in a sound and healthy condition. The number of members at the close of the year 1845, as stated in the last annual report, was 2,129. The withdrawals for the year 1846, were 295. New members added the past year, (1846) 609. The whole number of members on the 1st of January, 1847, 2,443; exhibiting a nett gain of 314 during the year 1846. From the Treasurer's report, it appears that the balance on hand 31st of December, 1845, was $603 16, and that the receipts from all sources in 1846, amounted to $5,060 61—making a total of $5,663 77. The expenditures for the same period, were $4,889 46—leaving a balance on hand 31st of December, 1846, of $774 31.

A comparison with the statement of the Treasurer in the last annual report, shows the present condition to be more favorable than even the improvement manifested at that time, and sustains the opinion expressed in the report, that the darker days of the institution have passed away, and that the future opens brighter prospects. It will appear, on comparing the two reports, that the receipts for initiation fees, and quarterly dues, are $208 *greater*, while the expenses, salaries, light and insurance, are $229 *less*, than the previous year; thus enabling a larger expenditure for books and periodicals; the amount laid out for which is $444 *more* in the last year, than in the preceding; and there has also been $114 greater amount paid for binding and printing, than for the corresponding period. The association, we are happy to state, remains entirely free from debt.

Nearly two thousand volumes have been added to the Library during the year 1846, making the total number at the present time, 24,623. The following statement has been carefully compiled from the reports made by the several Boards of Direction, commencing January, 1836, and exhibits for each year the initiation fees and quarterly dues received, the expenditures for books and periodicals, and the number of volumes added, to the present time:—

| | Fees. | Dues. | Cost of Books and periodicals. | Volumes added. |
|---|---|---|---|---|
| 1835 | $680 | $3.169 06 | $2,126 32 | 1,522 |
| 1836 | 867 | 3,861 50 | 2,286 74 | 1,845 |
| 1837 | 936 | 4,770 00 | 2,806 47 | 2,547 |
| 1838 | 1,003 | 5,788 50 | 3,115 72 | 2,471 |
| 1839 | 1,097 | 6,482 00 | 4,278 23 | 3,583 |
| 1840 | 501 | 6,183 00 | 1,995 19 | 390 |
| 1841 | 627 | 6,029 50 | 1,495 12 | 1,136 |
| 1842 | 308 | 4,998 75 | 2,179 79 | 1,252 |
| 1843 | 248 | 4,002 75 | 797 90 | 465 |
| 1844 | 387 | 3,461 00 | 708 35 | 745 |
| 1845 | 582 | 4,024 50 | 1,628 60 | 1,428 |
| 1846 | 609 | 4,206 00 | 2,072 59 | 1,883 |

Every merchant, and every merchant's clerk, should belong to an institution so eminently adapted to advance their own personal progress, as well as that of society.

## CUSTOM-HOUSE AND EXCHANGE AT VALPARAISO.

The custom-house at Valparaiso is a beautiful and spacious building, and from its situation on the Muele (Mole) is an object which attracts the attention of all who arrive at Valparaiso. In the neighborhood of the custom-house is the exchange. It is a plain building, and contains a large and elegant reading-room, in which may always be found the principal European newspapers. In this reading-room there is also an excellent telescope by Dollond, which is a source of amusement, by affording a view of the comical scenes sometimes enacted on board the ships in the port.

## WASHINGTON, AS A MERCHANT!

By every variety of commentary, has almost every fibre of the character of this extraordinary man been illustrated. His military talent has, in all its phases, been brought to the notice of the world—weighed, analyzed, reviewed—until it has come out of its fierce ordeal, established, as of the very first order of judgment, energy, bravery. His reputation as a statesman has been blazoned abroad with a vigor, derived alike from the truth and its forcible use. Men have honored themselves by giving the power of their intellect to the history of his devotion to his country. All his movements in war—all his acts in the cabinet, are on record; and he is one of the very few men that ever trod the earth, of whose reputation it is safe, that the knowledge of it should be thorough.

But George Washington was a great man, in other departments of life than those blended with the army and the state; and it is to a feature in his character, less prominently before the world, but one of the most valuable, of which we would speak in this article. It is the order, regularity, method, punctuality, and, above all, the rectitude—the unsullied and unchangeable devotion to his engagements, which distinguished him, and which, combined, are the very qualities that make up the merchant. In all these, the example of Washington may fittingly be urged upon the consideration of the merchants of the Union. The old merchants of the colonies were the very men who perilled the most in arraying themselves on the side of a separation from England. Theirs was no cheap patriotism—no offering of words; but the severing of a profitable mercantile connection—the riving asunder of relations that involved sacrifices alike keen and costly. From among those merchants, some of the most valued and useful of the officers and soldiers of the revolution were taken, and they proved themselves as active in the trade of war, as they had ever been vigilant in the war of trade.

The education of Washington was purely a practical one. All that he added to this was the result of efforts in maturer life, generally made, as events demonstrated the particular necessity of the study. This was a business foundation, early laid; and though at a time of life when boyhood is usually in its recklessness, the various parts of a business education were thoroughly built up in his character.

At the age of thirteen, he studied the intricate forms of business with an ardor which showed what was in him—with a method which demonstrated how that was to be developed. He copied out bills of exchange, notes of hand, bills of sale, receipts, and all the varieties of the class, which he denominated "Forms of Writing," and these are remarkable for the precision and the elegance with which they are copied. His manuscripts, even then, were of the utmost neatness and uniformity; the diagrams always beautiful; the columns and tables of figures exact, and in unstained and unblotted order. Old Tim Linkinwater would have looked most approvingly over *his* work, and admitted "George" to the awful books of "Cheeryble, Brothers." His excellent historian, Mr. Sparks, who has given us that rarest of all books, a reliable biography, remarks, that these excellent habits of method and order, thus early formed, continued throughout life. His business papers, ledgers, day-books, in which none wrote but himself, were models of exactness. The description of them might apply to those of the most careful book-keeper in our metropolis. Every fact had its place, and was recorded in a plain, clear handwriting, and there was neither interlineation, blot, or blemish! Frank Osbaldistone's father could have asked no more. Is it any wonder that with such ideas of what the methods of a business man should be, we should find as one of his "Rules of Behavior,"—a code of laws drawn up for his own government, when at the immature age to which we have already referred, and wonderful in their fitness—the following:—

"12th. Let your discourse with men of business be short and comprehensive."

In the 46th. "Undertake not what you cannot perform, but be careful to keep your promise."

These rules—this manifestation of a "business talent,"—were not merely the development of some temporary purpose, but firmly fastened rules of life, which were made to mould his life, and their value to him soon became manifest. He left school at the age of sixteen; and such was his reputation for probity and habits of business—for diligence and habits of despatch—that several eminent Virginia gentlemen were anxious to secure his services; and he soon became busied in laborious duties, the cares of which found an agreeable relief by the society of his cherished brother Lawrence, at Mount Vernon, a name, whose associations were thereafter to be rendered so glorious. With that brother, in 1751, he left the soil of his country for the first and last time, and made a visit of four months to the West Indies. Throughout all this tour, the traits of character, of which this article is particularly designed to speak, were constantly manifesting themselves. He daily copied the log-book, noted every thing, looked at every thing, and was never idle. When at Barbadoes, the commerce of the island was one of the subjects, concerning which, he made investigation, and about which, he made appropriate records in his journal.

The time soon came for him to be the actor in the greater scenes of life, and were it within the design of this article to follow his steady advance from one station of usefulness and honor to another, it would only be to point to the same unchanging rectitude, and fidelity to every engagement—the same precise order—the same undeviating exactness. The boy, who had with such care collated and prepared the details of an exercise at school, brought into like order the statistics necessary to be studied before a campaign could be wisely commenced. Every thing that could illustrate the duty of the soldier—the province of the commander—the plan of attack or defence—the topography of the field of battle—was, by his indomitable industry, his steadfast method, brought into a condensed form, that it might be easily grasped by the mind—that "the business" of the war might be well done.

Nor was it in war alone, that the man of order developed himself. We quote, in full, what Mr. Sparks says upon the subject of his conduct in this respect, when President of the United States:—

"During the presidency, it was likewise his custom to subject the treasury reports and accompanying documents to the process of tutular condensation, with a vast expenditure of labor and patience; but it enabled him to grasp, and retain in their order, a series of isolated facts, and the results of a complicated mass of figures, which could never have been mastered so effectually by any other mode of approaching them."

From 1759 to 1764, Washington was, in some measure, an acting merchant; for, in that calmest period of his life—after the brief, but brilliant episode of the Braddock campaign, most honorable to himself, however disastrous to one whose name was more prominent, and before the great drama of the revolution—he regularly exported to London the product of his large estate on the Potomac. The shipments were made in his own name, and to his correspondents in Bristol and Liverpool, to which places his tobacco was consigned. Are there none of those precious bills of lading yet in existence? They would be valued by many of us, on this side of the water, at least, as evidences of the attention which he gave to all his business.

In return for the articles exported, it was his custom, twice in each year, to import, at that period, from London, the goods which he desired to use; and Mr. Sparks thus delineates how accurately he fulfilled his duties as an importer:—

"He required his agent to send him, in addition to a general bill of the whole, the original vouchers of the shop-keepers and mechanics, from whom purchases had been made.

"So particular was he in these concerns, that he recorded with his own hand, in books prepared for the purpose, all the long lists of orders, and copies of the multifarious receipts from the different merchants and tradesmen who had supplied the goods. In this way, he kept a perfect oversight of the business; ascertained the prices; could detect any imposition, mismanagement, or carelessness, and tell when any advantage was taken of him; of which, if he discovered any, he did not fail to remind his correspondents."

And all this, we must remember, was while he had the charge of the vast estate of Mount Vernon, and while he was dispensing a large and generous hospitality.

When the French war had ended, it became his duty to attend to the settlement of the complicated military accounts of the colony of Virginia, a task, arduous enough, but, like all the other duties of his life, faithfully performed.

The war of the revolution left him no leisure for personal attendance on his private business, but yet it was never neglected. He could not be personally present; but while the noises of the camp, the preparations for battle, the deliberations of councils, were all shared in to the utmost, his correspondence about his home affairs, were as thorough and minute, as though he had been an absentee of leisure.

His accounts, while engaged in the service of his country, were so accurately kept, that to this hour they are an example held up before the nation. His habits of business enabled him, amidst the tumult of the revolution—its fierce contests—its sufferings and disorders, to so methodize and record all the business incidents of each day, that the end of the war found him prepared to lay before Congress an exact statement of his expenditures. There was about him a pervading principle of order, not of a lifeless, sluggish cast, but life-like and energetic; so that, while every thing was well done, it was done in time and in earnest.

Let any one read his will, and they will rise up from the perusal, with the conviction, that a more thorough man of business never lived. There have been many documents of a similar kind, drawn up with wonderful care and labor, and at vast remuneration, by gentlemen learned in the law, but none where every incident is so carefully attended to—not in the spirit of fearfulness of flaws and evasions, and all the thousand munitions of attack to which they resort who "break" wills—but in the orderly, sound, business-like manner, in which a Gresham might have written his projection of an exchange.

But we need point to no isolated instance. His whole life establishes the fact, that a more perfect man of business never lived than was George Washington.

Valueless, indeed, in the comparison, had they stood alone, would all this method, and order, and industry be. A merchant may have all these, and yet be but sagacious and—unprincipled; but of this man, a nobler record is left to us. I quote only what Thomas Jefferson has said, and *he* spoke certainly with no improper bias:—

"HIS INTEGRITY WAS MOST PURE."

To the merchant of the United States, the example of *Pater Patriæ* has not been, and will not be lost. So prompt to do—so exact in doing—so wise to know what was to be done—so prudent as to what should *not* be done—such unsullied honesty—such pure integrity. These are the qualities that, combined, make up the good and great merchant; and as they were eminent in George Washington, may he not be claimed as well by the merchants, as by the soldiers, or farmers, or statesmen? W. H. B.

## PUBLIC LOTTERIES OF LIMA, PERU.

In Lima, there is a public lottery, which the government farms to a private individual, for a considerable sum. The tickets are drawn weekly. The price of a ticket is one real. The largest prize is $1,000; the smaller prizes, $500, $250, or $100. A lottery on a larger scale is drawn every three months. The highest prize in this lottery is $4,000, and the price of the ticket is four reals. To every ticket is affixed a motto, usually consisting of an invocation to a saint, and a prayer for good luck, and at the drawing of the lottery, this motto is read aloud, when the number of the ticket is announced. Few of the inhabitants of Lima fail to buy at least one ticket in the weekly lottery. The negroes are particularly fond of trying their luck in this way, and in many instances fortune has been singularly kind to them.*

* Tschudi's Travels in Peru, in 1842; published by Wiley & Putnam.

## THE PRAYING PARSEE MERCHANT.

The following is an extract of a letter from the Rev. Mr. Hume, missionary at Bombay, to the editor of the "Dayspring." Mr. Hume says there are about twenty-five thousand Parsees, or followers of Zoroaster, resident in Bombay, and that they constitute the most intelligent, enterprising and wealthy class of the native population. Our own favored Christendom, (we say it reverently,) is not without its praying merchants, who know how to drive a good bargain:—

"A few days since, I had occasion to go into the shop of a Parsee, with whom I am considerably acquainted. It was in the afternoon, and I found him standing on the steps of his shop, with his face toward the setting sun, busily engaged in repeating his prayers. Many people were passing along the street just before him; but this seemed to cause him no concern, unless when he had occasion to bow to some acquaintance. When I turned to enter his shop, he gave me a very cordial salutation, bowing and waving his hand for me to enter, but all the time repeating his prayers as rapidly as ever. Perceiving that no one was present in the shop to attend to me, he clapped his hands several times, making a loud noise, the object of which seemed to be well understood by the family, as his son, a young man of about twenty years of age, came running into the shop.

"I asked him the price of the article which I had come to purchase; when he, being in doubt, went and inquired of his father, who, with the fore-finger of the right hand, wrote upon the palm of the other the price to be charged. The young man then came back and told what his father had said; but the price being extravagant, I objected to it, and told him what I would give. The young man, not feeling at liberty to act on his own responsibility, went and reported my offer to his father, who shook his head, and again wrote on his hand, as before, a sum considerably less than the first mentioned. The young man again came and stated the price now asked; which being still very unreasonable, I was about to leave, but said I would give him the sum offered at first if he chose to take it. The young man again hastened to his father with my offer, and, as he shook his head at this, I passed out at another door, leaving him repeating his prayers as busily as ever. While I remained, he appeared much interested in what was passing in the shop; and although praying with his face in an opposite direction, he every moment turned so far about as to catch a glance of us, and observe what we were doing.

"The person here mentioned is an intelligent, shrewd business man; but, alas, how blind in regard to spiritual matters! He readily acknowledged that we are indebted to God for every thing; but I have often seen him, early in the morning, bowing reverently in succession to the different articles in his shop, muttering over something at the same time. This is done from a superstitious belief that it may secure him good prices and prosperous business."

## NOVEL COMMERCIAL SPECULATION.

We cut from the "Polynesian," published at Honolulu, the official organ of the Hawaiian Government, conducted by James Jackson Jarvis, an American, the following statement, which illustrates the genius and enterprise of the American character:—

"An enterprising Yankee at Canton has recently built a Chinese junk of about 300 tons, fitted and rigged entirely after the Chinese mode, which he intends taking to New York, loading her with every species of China knicknacs, curiosities, etc., to be sold on board after arrival off that city. He takes also a Chinese crew, a theatrical and juggling company, males and females, and every thing curious, illustrative of the manners and customs of the Celestials. The junk will have canvass-sails, and a *Christian* rudder, to make her suitable for the long voyage, but upon arrival at the Narrows, every thing foreign will be replaced by Chinese articles, mat sails, clumsy rudder and all, and the junk anchor off the city in her entire oriental costume and build, where she will remain as a show-shop, sale-room and mountebank exhibition. It is expected she will make the passage in five months. The cost of the whole affair will be about $30,000, and the 'cute' proprietor will undoubtedly realize a large fortune. After having exhausted the United States, he has been offered $20,000 to deliver his junk in England. The Manhattanese will stare as broadly at the strange sight of a cruiser from the flowery land sailing up their noble river, as did the aborigines when old Hendrick Hudson astonished their unsophisticated senses by a display of his Dutch canvass in their bay. The junks are said to be good sea-boats, and nothing worse than delay is feared in the voyage. We only wonder some one never thought of it before."

## THE MERCHANTS AT VALPARAISO.

In Valparaiso, as in all seaports, there is a heterogeneous mixture of different countries, nations, languages, and manners, amidst which, the national character of the country is entirely lost. The trade in European goods is very extensive, but almost exclusively in the hands of a few great North American and English houses, who supply the whole country with the articles they import. At times, such is the overstock of importations, that goods are sold at lower prices in Valparaiso, than in Europe. The warehouses are so filled with some sorts of merchandise, that without any fresh supplies, there would be sufficient for some years to come. Among the clerks in the mercantile houses, Dr. Von Tschudi, the German traveller, in 1842, met with a great number of Germans, who all maintain an intimate association with each other. They have formed themselves into a union, and they have a very commodious place in which they hold their meetings. Following their example, the English have united together, and established several clubs. The French have not gained any considerable footing in this part of South America, in which there are scarcely two French mercantile houses of any consequence. On the other hand, there is abundance of French hairdressers, tailors, shoemakers, jewellers, confectioners, and *chevaliers d'industrie.* Neither is there any want of *modistes Parisiennes et Bordelaises.*

## COMMERCIAL PROSPECTS OF SINGAPORE.

Mr. G. Davidson, in his recently published work, "Trade and Travel in the East," thus speaks of the commercial prospects of Singapore:—

"As to the commercial prospects of this island, I have some misgivings. The recent establishment by her majesty's government, of the British colony of Hong Kong, and the opening of the northern ports on the coast of China, will, I fear, give its commerce a check: indeed, it seems inevitable that it should suffer from these causes. When we consider the vast importance of the Chinese junk trade to Singapore, and take into account the cheaper rate we can supply them, now their ports are open, at their own doors, with every commodity they require from the Malay islands, the risk, trouble, and expense they will save by supplying their wants or disposing of their superfluities, in the harbors of Shang Hae, Ningpo, Foo Chow, or Amoy, instead of undertaking the long voyage to the straits of Malacca for that purpose,—one is at a loss to conceive on what grounds the sanguine expectation can rest, that the opening of China will do Singapore no harm. Some of its merchants evidently share in my anticipation, as they have completed arrangements for forming establishments at Hong Kong, in order to avail themselves of the change they expect to take place in the course of the trade. It will not be this year, nor, probably, the next, that this change will take place; but, that it must ultimately come to pass, I can see no room to doubt.

"In other branches of its trade, Singapore will, probably, not suffer so much from the late arrangements with China; but it will suffer more or less. It is extremely likely, that a large portion of the rice of Bally and Lombok, the pepper of Borneo, and the beche-de-mer of Celebes, will be carried direct to China in European vessels, instead of passing, as hitherto, through the hands of the Singapore merchants. Whenever a new mart is opened, there is no want of men, money, or ships to take advantage of it; and we can place pepper from Borneo, and rice from Bally, in any port on the coast of China, for less money, by carrying them there direct from the place of growth, than the Chinese can by carrying them from Singapore in their junks. These vessels only make one voyage in the year, whereas a square-rigged vessel can make three with ease; and it is on account of the greater service performed by the latter, that she can carry goods to market cheaper than a junk. I repeat, therefore, that I think the trade of Singapore has reached its maximum; and that the town has attained to its highest point of importance and prosperity. Indeed, it is at this moment rather over-built."

## CONSUMPTION OF TEA IN THE WORLD.

The *Giornale del Lloyd Austriaco* gives the following statistics relative to the demand for tea:—It appears that from the 1st of July, 1845, to the 30th of June, 1846, there was a demand for 797,818,733 lbs. of tea, of which 705,732,024 lbs. were used in China itself, and the following quantities exported—viz., 57,584,561 lbs. to Great Britain and Ireland; 18,502,148 lbs. to the United States of North America; 2,000,000 lbs. to Holland; 5,000,000 lbs. to Russia, (by land); 3,000,000 lbs. to Hamburg, Bremen, Denmark and Sweden; 4,000,000 lbs. to Sydney and South Australia; and 2,000,000 lbs. to Spain and France.

# JOURNAL OF BANKING, CURRENCY AND FINANCE.

## BELGIAN SYSTEM OF WEIGHTS, MEASURES, AND CURRENCY.

BELGIUM has adopted the weights and measures of the French metrical system; the fundamental principle of which is the measure of length. Its unity, the metre, is the ten millionth part of a quadrant of the meridional circle of the earth. The length of the metre is nearly an inch less than an English yard and half a quarter; that is 3.28 feet.

The unit of superficial measure, the are, is a square, of which the side is ten metres.

The unit of the measure of capacity, the litre, is a cube, of which the side is the tenth part of a metre, 61.028 cubic inches.

The stere is a cubic metre, 35.317 cubic feet.

The unit of the measure of weight is a centimetre cube of distilled water; that is, a cube of which the side is a hundredth part of a metre.

The itinerary measures are the decametre, 10 metres; the kilometre, 1,000 metres; and the myriametre, 10,000 metres.

Land is measured by the hectare, containing 10,000 square metres; the decare of 1,000 square metres, or 1,196 square miles; the are, containing 100 square miles, and the centiare, which is one square mile.

For solid measure are used the stere, and decistere; that is, a cubic metre and its tenth part.

For the measure of weight are used the gramme, the decagramme, or 10 grammes; the kilogramme, or 1,000 grammes, and the quintal, or 100 kilogrammes.*

TABLE OF CORRESPONDING MEASURES, ENGLISH AND BELGIAN OR FRENCH.

| | |
|---|---|
| Metre..... 3.28 feet, or 39.37 inches. | ctare..... 2.471 acres, 11,960 sq. yards. |
| Millimetre..... 0.039 inch. | Litre..... 1.760 pints, 61.03 cubic in. |
| Centimetre..... 0.393 inch. | Decalitre..... 2.201 gallons, 610.28 cub. in. |
| Decimetre..... 3.937 inches. | Hectalitre..... 22.009 galls., 2.84 W. bush. |
| Myriametre... 6.213 miles, 10,936 yards. | Gramme..... 15.434 grains Troy. |
| Metre carre... 1.196 square yards. | Kilogramme { 2.680lbs. Troy, 2lb. 8oz. 3dwt. / 2.605lbs. Avoir.2lb. 3oz. 4dwt. |
| Are..... 0.098 sq. roods, 119.6 sq. yds. | Millior or Bar. 9 tons,—16cwt, 3qrs, 12lbs. |
| Decare..... 1,196 square yards. | |

The Belgian kintal is equal to 103 lbs. English, or 47 kilometres.
21 Belgian kintals and 75 lbs., 1 English ton of 2,240 lbs.
10.1465 metrical quintals, 1 English ton.
The hectolitre, used in coal measure { 90 kilogrammes, or 2.84 Winchester bushels. / 3½ cubic feet, or 22 imperial gallons.
11.26 hectolitres, 1 English ton. 1,014.65 kilogrammes, 1 ton,—in ordinary calculations, 1,000 kilogrammes are held as one ton.
1 hectare of land, 2.471 English acres.
1 Vierkantebunder, 119.6 English yards square, or 1 French acre.
1 metrical mile, 1,093 English yards, or 1 French kilometre.
1 mudde, 6,102 cubic inches English, or 2.837 bushels, or 100 French litres.

CURRENCY.—The franc is the monetary unit of Belgium, and its divisions are made according to the decimal system:—

1 franc, 9.69d. English, or 19½ cents United States currency.
20 francs, 1 Napoleon, 1 new Louis, 16s. 2d. English, or $3.86 U. S. currency.
1 English sovereign in Belgian money, 25 francs, 20 centimes.
1 English shilling, 1 franc, 16 centimes.

* Chiefly derived from McCulloch's Gazetteer, and Loudon's Tables.

## CHARTERED AND FREE BANKS OF NEW YORK.

The following is a summary of the resources and liabilities of all the banks in this State, on the 1st days of November, 1845 and 1846:—

RESOURCES.

| | 1845. 148 banks, 2 branches. | 1846. 150 banks, 2 branches. |
|---|---|---|
| Loans and discounts | $77,177,011 | $72,301,980 |
| Real estate | 3,645,684 | 3,642,711 |
| Bonds and mortgages | 3,181,746 | 2,784,012 |
| Stocks and promissory notes | 10,962,822 | 11,226.767 |
| Bank fund | 236,268 | 169,234 |
| Loss and expense account | 425,584 | 279,920 |
| Over drafts | 133,242 | 151,640 |
| Specie | 8,884,545 | 8,048,384 |
| Cash items | 5,947,585 | 7,786,699 |
| Bills of solvent banks | 2,258,862 | 2,421,069 |
| Bills of suspended banks | 14,482 | 10,005 |
| Due from banks and bankers | 9,534,166 | 9,318,635 |
| | $120,401,997 | $118,141,056 |

LIABILITIES.

| | 1845. 148 banks, 2 branches. | 1846. 150 banks, 2 branches. |
|---|---|---|
| Capital | $42,845,428 | $43,024,658 |
| Profits | 5,018,043 | 5,498,222 |
| Circulation | 21,375,369 | 22,268,522 |
| Due Treasurer of the State | 631,063 | 669,829 |
| Due canal fund | 1,581,330 | 581,737 |
| Due depositors on demand | 31,773,991 | 30,629,196 |
| Due individuals | 759,259 | 801,392 |
| Due banks | 12,829,854 | 12,978,464 |
| Due Treasurer of the United States | 3,002,649 | 1,098,330 |
| Amount not included in above items | 585,011 | 590,706 |
| | $120,401,997 | $118,141,056 |

## CONDITION OF THE CHARTERED BANKS OF NEW YORK.

The following table shows the principal items of the bank statements of all the chartered banks of the State for the last five years, derived from the annual report of the comptroller of the State of New York:—

LIABILITIES.

| | Jan. 1, 1843. 85 banks. | Nov. 1, 1843. 85 bks. 2 brchs. | Nov. 1, 1844. 83 bks. 2 brchs. | Nov. 1, 1845. 81 bks. 2 brchs. | Nov. 1, 1846. 80 bks. 2 brchs. |
|---|---|---|---|---|---|
| Capital | $32,901.280 | $32,391,460 | $31,391,460 | $30,491,460 | $30,241,460 |
| Circulation | 9,734,465 | 13,350,334 | 15,114,686 | 15,831,058 | 16,033,125 |
| Canal fund | 1,464,496 | 1,111,357 | 1,214,790 | 1,244,524 | 398,080 |
| Deposits | 15,109,164 | 22,407,761 | 21,979,071 | 23,104,678 | 21,678,988 |
| Due Banks | 10,736,602 | 12,203,614 | 11,210,760 | 10,048,355 | 9,885,308 |

RESOURCES.

| | Jan. 1, 1843. 85 banks. | Nov. 1, 1843. 85 bks. 2 brchs. | Nov. 1, 1844. 83 bks. 2 brchs. | Nov. 1, 1845. 81 bks. 2 brchs. | Nov. 1, 1846. 80 bks. 2 brchs. |
|---|---|---|---|---|---|
| Loans and discounts. | $44,276,546 | $51,711,666 | $57,285,160 | $57.734,989 | $54,938,836 |
| Stocks | 4,843,320 | 6,055,938 | 4,170,935 | 4,227,191 | 3,727,186 |
| Specie | 6,738,389 | 9,953,270 | 6,978,055 | 6,856,718 | 6,340,513 |
| Bank notes | 3,890,677 | 3,537,600 | 1,971,208 | 1,897,991 | 1,891,514 |
| Cash items | 2,248,202 | 2,526,158 | 4,511,316 | 4,469,853 | 5,640,583 |
| Due from banks | 3,726,370 | 8,477,399 | 7,173,523 | 7,927,610 | 7,419,629 |

### INCORPORATED BANKS OF NEW YORK.

We give below an aggregate statement of 80 incorporated banks and 2 branches, on the 1st November, 1846:—

| RESOURCES. | | LIABILITIES. | |
|---|---|---|---|
| Loans and discounts | $54,933,836 | Capital | $30,241,460 |
| Real estate | 3,123,468 | Profits | 4,129,357 |
| Bonds and mortgages | 873,598 | Circulation | 16,033,125 |
| Stocks and promissory notes | 3,727,186 | Due treasurer of the State | 502,814 |
| Bank fund | 169,234 | Due canal fund | 398,080 |
| Loss and expense account | 170,348 | Due depositors on demand | 21,678,988 |
| Overdrafts | 112,833 | Due individuals | 433,838 |
| Specie | 6,340,513 | Due banks | 9,885,308 |
| Cash items | 5,640,583 | Due treasurer of United States | 756,777 |
| Bills of solvent banks | 1,891,514 | Amount not included in above | 356,413 |
| Bills of suspended banks | 7,948 | | |
| Due banks | 7,419,629 | | $84,416,160 |
| | $84,416,160 | | |

### FREE BANKS OF NEW YORK.

The following is an aggregate statement of 70 free banks on the 1st November, 1846:—

| RESOURCES. | | LIABILITIES. | |
|---|---|---|---|
| Loans and discounts | $17,363,144 | Capital | $12,783,198 |
| Real estate | 519,243 | Profits | 1,368,865 |
| Bonds and mortgages | 1,910,504 | Circulation | 6,235,397 |
| Stocks and promissory notes | 7,499,581 | Due treasurer of the State | 167,015 |
| Loss and expense account | 109,072 | Due canal fund | 183,657 |
| Overdrafts | 38,747 | Due depositors on demand | 8,950,208 |
| Specie | 1,707,871 | Due individuals | 367,554 |
| Cash items | 2,146,116 | Due banks | 3,093,156 |
| Bills of solvent banks | 529,555 | Due treasurer of United States | 341,553 |
| Bills of suspended banks | 2,057 | Amount not included in above | 234,293 |
| Due banks | 1,899,006 | | |
| | $33,724,896 | | $33,724,896 |

## DEBT OF THE STATE OF NEW YORK.

CONDITION AND PROGRESS OF THE STATE DEBT, FROM 1837 TO 1846.

The following statement, derived from the annual report of A. C. Flagg, Esq., the comptroller of the State of New York, shows the character, condition, and progress of the State debt for the last ten years. The first column shows the amount of State stock issued and loaned to railroad and canal corporations. The second column, the sum borrowed for the ordinary support of the government, including the stock issued to John Jacob Astor. The third column shows the amount of unredeemed stock issued on account of the several canals; and the fourth, the total of the whole debt. The debts are given as they appea in the annual reports of the 30th of September of each year

| Years. | 1. Contingent debt. | 2. Gen. Fund debt. | 3. Canal debt. | 4. Agg. State debt. |
|---|---|---|---|---|
| 1837 | $810,000 | $978,032 | $6,166,082 | $7,954,114 |
| 1838 | 1,497,700 | 1,148,032 | 9,308,120 | 11,953,852 |
| 1839 | 1,847,700 | 1,392,217 | 10,785,820 | 14,025,738 |
| 1840 | 2,845,700 | 1,412,961 | 14,126,647 | 18,385,308 |
| 1841 | 4,235,700 | 1,418,878 | 16,306,374 | 21,960,952 |
| 1842 | 1,720,000 | 5,559,805 | 19,574,392 | 26,854,197 |
| 1843 | 1,720,000 | 5,423,415 | 20,392,324 | 27,535,739 |
| 1844 | 1,720,000 | 5,634,507 | 20,713,905 | 28,068,413 |
| 1845 | 1,713,030 | 5,885,549 | 19,690,020 | 27,288,560 |
| 1846 | 1,713,000 | 5,992,840 | 17,028,240 | 24,734,080 |

The preceding statement would seem to show that the contingent debt reached its highest point on the 30th of September, 1841; this, however, is not so. Between the 30th of September of that year, and the 7th of February, 1842, stock was issued and loaned to the New York and Erie Railroad, to the amount of $900,000, and to the Schenectady and Troy Railroad, $100,000, being a total of one million, and making the aggregate amount of the contingent debt, on the 7th of February, 1842, $5,235,700. The last hundred thousand dollars of stock was issued to the Erie Railroad Company, on the 29th of January, 1842, and on the 12th of March following, the president of the company informed Gov. Seward that the company had made no provision for the payment of the April interest on any of the State stock issued to said company, then amounting to $3,000,000. This letter was communicated to the Legislature by Gov. Seward. By this failure of the Erie Railroad Company, and the previous failures of the Ithaca and Oswego, and the Catskill and Canajoharie companies, the sum of $3,515,700 was transferred from the column of contingent liabilities, to a direct debt chargeable on the treasury. This explanation accounts for the great changes in the general fund and contingent debts, from 1841 to 1842.

The canal debt, in the preceding statement, appears to have reached its highest point at the close of the fiscal year in 1844, when it stood at $20,713,905. The canal debt, on the 7th of February, 1842, was given at $18,656,011.72, which embraced $600,000 to pay arrearages to contractors. Subsequent payments show that the sum then estimated for arrearages was greatly underrated. Instead of $600,000, there has actually been paid, from the 7th of February, 1842, to the 13th of June, 1846, the following sums:—

| | |
|---|---|
| For arrearages to contractors, engineers, &c. | $2,649,487.35 |
| For land damages | 473,520.74 |
| | $3,175,008.09 |

## THE DEBT AND FINANCES OF THE STATE OF MARYLAND.

The State realized from taxation and other sources, last year, $898,619 in addition to cash on hand at the commencement of the year; while the whole annual interest upon her debt is $651,821, and the ordinary expenses of the State less than $200,000. The receipts of the State from direct taxes, stamps, and other sources, are largely increasing, and it is difficult to imagine any well-grounded objection to the process of resumption during the present year.

PUBLIC DEBT OF MARYLAND, DECEMBER 1, 1846.

| | |
|---|---|
| For construction of State Tobacco Warehouses in Baltimore | $85,000 00 |
| For the construction of the Maryland Penitentiary | 97,947 30 |
| For the Washington Monument, Baltimore | 3,000 00 |
| For account of the Baltimore and Ohio Railroad Company | 3,697,000 00 |
| For account of Baltimore and Washington Railroad Company | 500,000 00 |
| For account of the Chesapeake and Ohio Canal Company | 7,194,666 67 |
| For construction of the Baltimore and Susquehanna Railroad | 2,232,045 29 |
| For construction of the Annapolis and Elkridge Railroad | 219,724 45 |
| For construction of the Susquehanna and Tide-Water Canals | 1,000,000 00 |
| For construction of the Eastern Shore Railroad | 152,401 27 |
| For Medical Department of Baltimore University | 30,000 00 |
| | $15,211,784 98 |

RECAPITULATION.

| | |
|---|---|
| Currency, 6 per cent bonds | $3,932,306 44 |
| " 5 " " | 1,831,811 87 |
| Sterling, 5 " " | 8,857,666 67 |
| Currency, 4½ " " | 100,000 00 |
| " 3 " " | 500,000 00 |
| Total | $15,211,784 98 |

| | | |
|---|---|---|
| Of this amount there is held by the Baltimore and Ohio Railroad Company, *and not negotiated*, in 5 per cent sterling bonds, issued in 1838 | | $3,200,000 |
| Held by the Treasurer of the Sinking Fund, (as per preceding statements) | | 1,496,473 |
| Actual Funded Debt of the State | | 10,515,311 |
| Total | | $15,211,784 |
| Official tables show that the *entire* funded debt of the State is | | $15,211,784 |
| Of which there is held by the Baltimore and Ohio Railroad Company, *not negotiated*, and will probably never come against the State | $3,200,000 | |
| And State bonds held by the Treasurer of the State's Sinking Fund | 1,496,473 | |
| | | 4,696,473 |
| Leaving an actual funded debt of | | $10,515,311 |

## CONDITION OF THE BANKS OF MASSACHUSETTS.

We are indebted to the Hon. John G. Palfrey of Massachusetts, for the "Abstract exhibiting the condition of the banks in Massachusetts, on the first Saturday in October, 1846, prepared from official returns, by John G. Palfrey, Secretary of the Commonwealth." It has just been published for the use of the Legislature of that State, and covers fifty-eight pages. We give below the aggregate condition of all the banks except four, from which returns had not been received at the time the report was made up.

DUE FROM THE BANKS.

| | 25 banks in Boston. | 80 out of Boston. | Total—105. |
|---|---|---|---|
| Capital stock paid in | $18,180,000 00 | $12,980,000 00 | $31,160,000 00 |
| Bills in circulation of $5 and upwards. | 5,677,668 00 | 6,651,717 00 | 12,329,385 00 |
| Bills in circulation less than $5 | 696,018 00 | 1,566,511 50 | 2,262,529 50 |
| Nett profits on hand | 1,474,694 72 | 1,029,441 45 | 2,504,136 17 |
| Balances due to other Banks | 5,072,005 48 | 213,010 19 | 5,285,015 67 |
| Cash deposited | 6,806,374 51 | 2,653,001 41 | 9,459,375 92 |
| Cash deposited bearing interest | 740,237 18 | 161,034 80 | 901,271 98 |
| Total amount due from the Banks | 38,646,997 89 | 25,254,716 35 | 63,901,714 24 |

RESOURCES OF THE BANKS.

| | 25 banks in Boston. | 80 out of Boston. | Total—105. |
|---|---|---|---|
| Gold, silver, and other coined metals | $2,437,072 39 | $617,683 29 | $3,054,755 68 |
| Real Estate | 719,582 87 | 378,418 10 | 1,098,000 97 |
| Bills of other banks in this State | 2,394,802 78 | 240,256 38 | 2,635,059 16 |
| Bills of other banks elsewhere | 176,236 00 | 43,459 55 | 219,695 55 |
| Balances due from other banks | 3,104,657 23 | 2,463,431 59 | 5,568,088 82 |
| Amount of all debts due | 29,814,646 62 | 21,511,467 44 | 51,326,114 06 |
| Total amount of the resources | 38,646,997 89 | 25,254,716 35 | 63,901,714 24 |
| Rate, amount, and date of dividends, since the last annual returns | 1,163,500 00 | 692,790 00 | 1,856,290 00 |
| Reserved profits at time of last dividend. | 1,151,642 10 | 655,561 65 | 1,807,203 75 |
| Debts due each bank, secured by stock. | 396,075 85 | 345,460 69 | 741,536 54 |
| Debts due and unpaid, (doubtful) | 74,266 76 | 188,176 39 | 262,443 15 |

AGGREGATE DIVIDENDS.

| | | | | |
|---|---|---|---|---|
| Banks in Boston, | for the year, | a fraction less than | 6.4 | per cent. |
| " " | in April, | " " | 3.25 | " |
| " " | in October, | " over | 3.15 | " |
| " out of Boston, | for the year, | " less than | 5.34 | " |
| " " | in April, | " over | 3.21 | " |
| " " | in October, | " " | 2.12 | " |
| All the Banks, | for the year, | " " | 5.95 | " |
| " | in April, | " " | 3.23 | " |
| " | in October, | " " | 2.72 | " |

Some of the banks did not return dividends in October, 1846, although they may have made them.

## CONDITION OF THE SAVINGS BANKS OF MASSACHUSETTS.

From the report of the Secretary of the Commonwealth of Massachusetts, we derive the following statement of the aggregate condition of thirty-eight Savings Banks in Massachusetts, on the last Saturday of October, 1846:—

AGGREGATE OF THIRTY-EIGHT SAVINGS BANKS.

| | | | |
|---|---|---|---|
| Number of depositors..... | 62,893 | Loans on mortg. of real est. | $3,757,262 80 |
| Amount of deposits..... | $10,680,933 10 | Loans to county or town... | 818,041 96 |
| Public funds..... | 1,890,535 93 | Loans on personal security. | 1,930,072 88 |
| Loans on public funds..... | 19,500 00 | Cash on hand..... | 150,728 26 |
| Bank stock..... | 1,909,620 72 | Rate and amount of dividend for last year..... | 4½ per cent. 345,443 10 |
| Loans on bank stock..... | 149,256 50 | | |
| Deposits in b'ks bear'g int. | 94,520 61 | Average annual per cent of dividends of last 5 years | 5¼ per cent. |
| Railroad stock..... | 14,800 00 | | |
| Loans on railroad stock.... | 232,538 75 | Annual expenses of the institutions..... | 29,306 69 |
| Invested in real estate..... | 90,884 22 | | |

## THE MINT AT LIMA, IN PERU.

The mint is situated in the vicinity of the Plaznela de la Independencia. It was founded in Lima, in the year 1565; in 1572 transferred to Potosi, and in 1683 removed back to Lima. For the space of seventy years this establishment was in the hands of private individuals; but in the year 1753 the Spanish government took the management of it, and erected the building in which it is still located. It is a large and handsome structure, but very defective in its internal arrangement. Until the year 1817, the machinery for casting was worked by mules, ninety-two of those animals being employed daily. Subsequently, under the direction of an Englishman, water-power was introduced, by which expense was diminished and time saved. A few years ago, a French merchant made an arrangement with the government for the use of a complex machine, which he proposed to bring from Europe. The machine arrived, but by an unlucky fatality it proved perfectly useless. For the space of four years repeated attempts were made to work it, but in vain; it fulfilled none of the required conditions. Its faults are manifold, and it reflects but little credit on the person by whom it was contrived. It has cost no less than $250,000, and has never been of the least use. In the mint of Lima there are annually cast from two to two and a half millions of dollars, which yield a profit of from $140,000 to $180,000, out of which are paid the salaries of the persons employed. Under the Spanish government, these salaries amounted annually to $48,906; now they make, together with other customary outlays, the sum of $85,105. The value of a mark of silver, in the mint, is 8 dollars 4 reales; that of a mark of gold is 144 dollars 4 reales. The standard worth of the gold is 21 carats; that of the silver 20 grains.*

## UNITED STATES TREASURY CIRCULAR.

TREASURY DEPARTMENT, *Feb.* 4, 1847.

Under the provision of the act of the 6th of August last, establishing the Constitutional Treasury, it is believed proper, and is hereby directed, that on or before the 1st of April next, the balances remaining in any of the banks should be transferred in specie or treasury notes, and deposited with the treasurer of the United States, the nearest assistant treasurer, treasurer of the mint, or branch mint, as the case may be. By the provisions of the 19th section of this law, no disbursement can be made after the 1st of April next, except in specie or treasury notes; and it would seem proper that, after that period, the public moneys should no longer remain, in whole or in part, in any of the banks. As the balances still remaining in the banks have been reduced to an inconsiderable sum, no inconvenience can be produced by this order. R. J. WALKER, Secretary of the Treasury.

* Travels in Peru, during the years 1838–1842, by Dr. J. J. Von Tschudi. New York: Wiley & Putnam.

## THE ORIGIN OF THE DOLLAR MARK.

The origin of ($) this mark seems to be exciting considerable interest throughout the country, and there is of course much diversity of opinion as to its origin. Beverly Tucker has written a letter to the editors of the "Southern Standard," in which he gives the following as the most rational account that he has ever heard of the $ mark:—

"The Straits of Gibraltar, called of old 'the Pillars of Hercules,' were called the *ne plus ultra* of the world. Spain pushed her discoveries to this continent, and when she carried home the wealth that rewarded her enterprise, she coined it into dollars, and stamped them with a triumphant allusion to her great achievement. The pillars they bear are the Pillars of Hercules, and across them is twined a fillet marked with the beautiful words '*plus ultra*' —'farther yet.' The two straight lines are supposed to represent these pillars, and the line that waves across them stands for the fillet; and thus the mark $ is but a rude picture of this part of the impression."

This, says the Journal of Commerce, sounds very well, but it is not correct. The Journal then proceeds to give the origin of the sign, as follows:—

"The Spanish word for dollar is 'peso;' in the plural, 'pesos.' In old Spanish accounts the word is written in full, and placed before the numerals. Then we find it abbreviated into *Ps*. Afterwards we find the small *p* used, and the letter *s* placed on the lower part of the *p*. Next, that the curved part of the letter *p* is omitted, which gives the present dollar sign $. The use of two long strokes in the sign, is modern in its use. Thus the sign $ is an equivalent for the word 'pesos.'"

The New York Express furnishes yet another solution of the question. The Express says:—

"That the dollar mark is only applied, properly, to the United States coin or currency of that name; and originally, in order to distinguish it as such, it was written with the 'U. S.' affixed, as 'U. S. 100 dollars;' and in process of time the whole became abbreviated to 'U. S. 100;' and then by abbreviation to the two letters in one, the S crossing the U, out of which has grown the '$.'"

We are unable to decide as to the correctness of the several theories advanced, and must, therefore, remain in ignorance, unless some learned member of the American Antiquarian Society sees fit to enlighten us on the subject. We are, however, rather inclined to the decision of Judge Tucker.

## REVENUE OF ENGLAND SINCE THE CONQUEST.

A TABULAR STATEMENT OF THE REVENUE OF ENGLAND UNDER EACH REIGN OR ADMINISTRATION FROM 1066 TO 1826, A PERIOD OF 760 YEARS.

| | Anno. | £ | | Anno. | £ |
|---|---|---|---|---|---|
| William the Conqueror.... | 1066 | 400,000 | Henry VIII..... | 1509 | 800,040 |
| William Rufus..... | 1087 | 350,000 | Edward VI..... | 1547 | 400,000 |
| Henry I..... | 1100 | 300,000 | Mary ..... | 1553 | 450,000 |
| Stephen..... | 1135 | 250,000 | Elizabeth..... | 1558 | 500,000 |
| Henry II..... | 1154 | 200,000 | James I..... | 1602 | 600,000 |
| Richard I..... | 1189 | 150,000 | Charles I..... | 1625 | 895,819 |
| John..... | 1199 | 100,000 | The Commonwealth. } | 1648 | 1,517,247 |
| Henry III..... | 1216 | 80,000 | Charles II..... } | | 1,800,000 |
| Edward I..... | 1272 | 150,000 | James II..... | 1685 | 2,001.855 |
| Edward II..... | 1307 | 100,000 | William III..... | 1688 | 3,895,205 |
| Edward III..... | 1327 | 154,140 | Queen Anne (at Union) | 1706 | 5,691,803 |
| Richard II..... | 1377 | 130,000 | George I..... | 1714 | 6,762,643 |
| Henry IV..... | 1399 | 100,000 | George II..... | 1727 | 8,522,540 |
| Henry V..... | 1413 | 76,643 | George III. (1778)..... | 1760 | 15,272,971 |
| Henry VI..... | 1422 | 64,976 | " ..... | 1800 | 36,728,000 |
| Edward IV..... | 1460 | } | " ..... | 1815* | 71,153,142 |
| Edward V..... | 1483 | } 100,000 | George IV. (averaging). | 1820 } 1826 } | 58,000,000 |
| Richard III..... | 1483 | } | | | |
| Henry VII..... | 1485 | 400,000 | | | |

* War.

## UNITED STATES BRANCH MINT OF NEW ORLEANS.

The following are statistics of the amount of moneys coined in the above establishment for the years 1845 and 1846:—

| 1845. | | 1846. | |
|---|---|---|---|
| Eagles, | 47,500 | Eagles, | 84,780 |
| Half eagles, | 41,000 | Half eagles, | 58,000 |
| Half dollars, | 2,094,000 | Quarter eagles, | 60,000 |
| Dimes, | 230,000 | Dollars, | 59,000 |
| | | Half dollars, | 2,304,000 |
| Value of gold, | $680,000 | Value of gold, | $1,272,800 |
| " silver, | 1,070,000 | " silver, | 1,211,000 |
| Total, | $1,750,000 | Total, | $2,483,800 |

The above statement shows an increase of $733,800, during 1846, over the amount coined in 1845.

## TREASURY NOTES CONVERTED INTO UNITED STATES STOCK.

The annexed, is the latest order from the Treasury Department, in relation to Treasury notes:—

TREASURY DEPARTMENT, Feb. 15, 1847.

Deposits of Treasury notes for conversion into stock, bearing interest at 6 per cent per annum, and redeemable after the expiration of twenty years, under 14th section of the act of Congress, approved January 28, 1847, may be made with the Treasurer, and the several assistant Treasurers of the United States, the Treasurer of the mint at Philadelphia, and of the branch mint at New Orleans, and with the collector of the customs at Baltimore, Maryland.

In receiving Treasury notes in deposit for such conversion, these officers will give each depositor a certificate of such deposit, stating the principal of such notes, for which stock will be issued. These certificates of deposit will be forwarded to the Register of the Treasury by the depositor, with an indication of the denomination of stock certificates he desires thereon. Interest will be borne on the stock, from the date of such deposit.

The interest due upon the Treasury notes, so deposited, will be settled by the accounting officers, and the amount remitted by draft, in the usual form, to the depositor.

R. J. WALKER, Secretary of the Treasury.

## FINANCES OF LOUISIANA.

The annual report of Gen. Walker, Treasurer of Louisiana, exhibits, that on the 31st of December, 1845, the balance in the treasury was $352,071 33; received subsequently to the 13th March, $197,927 77; expenditures during same time, $111,882 95; leaving a balance on 14th March, 1846, of $438,116 15. The receipts since that time, to the 31st ultimo, were $807,599 79; and the expenditures during the same time, $853,930 33; leaving a balance of $391,785 61. The surplus of the year 1847 is estimated at $79,220. The debt "proper" of the State is set down at $1,846,884 13. This sum includes an amount of nearly half a million of the surplus revenue distributed by the federal government, and upwards of forty thousand dollars balance on appropriations and current expenditures, not claimed. The assets of the State are set down at $2,364,622 08.

## CLEVELAND'S EXCHANGE TABLES.

These tables show the value, in dollars and cents, of any sum of exchange on London, from one penny to five thousand pounds sterling, commencing at par, and progressing by quarters to 12 per cent advance. A new edition, recently published by P. A. Mesier of New York, contains several additional tables of great value to merchants.

# COMMERCIAL REGULATIONS.

## THE BRITISH CORN LAWS.

AN ACT TO AMEND THE LAWS RELATING TO THE IMPORTATION OF CORN.

By this Act it is declared that from and after the passing of this Act, in lieu of the duties now payable upon the entry for home consumption in the United Kingdom, and upon the importation into the Isle of Man, of corn, grain, meal, and flour, there shall be levied and paid unto her majesty, her heirs, and successors, on all corn, grain, meal, and flour already or hereafter to be imported into the United Kingdom or the Isle of Man from parts beyond the seas, and entered for home consumption, after the passing of this Act, the duties set forth in the schedule to this Act annexed, until February 1, 1849; and on, from and after the said February 1, 1849, the following duties, namely:—

Upon all wheat, barley, bear or bigg, oats, rye, peas, and beans—for every quarter one shilling, and so in proportion for a less quantity.

Upon all wheat-meal and flour, barley-meal, oat-meal, rye-meal and flour, pea-meal, and bean-meal—for every cwt. four-pence halfpenny; and so in proportion for a less quantity.

By § 2 the several duties hereby imposed, and leviable in the United Kingdom, are to be levied, collected, paid, and applied as under the previous acts, as are also (§ 3) the duties leviable in the Isle of Man. The average prices, (§ 4,) both weekly and aggregate, of all British corn, shall continue to be made up, computed, and published, and the certificates of the aggregate average prices continue to be transmitted, at the times, and in the manner required by the 5 and 6 Vict. c. 14; and the rate and amount of the duties set forth in the schedule to this Act shall be regulated and governed, according to the scale therein, by the aggregate average prices so to be made up, in the same manner as the rate and amount of the duties imposed by the said Act are directed to be regulated and governed. But (§ 5) so much of the said Act as prohibits the importation into the United Kingdom for consumption there of any corn ground, is repealed.

DUTIES UNDER THE CORN IMPORTATION ACT.

If imported from any foreign country:—

*Wheat.*—Whenever the average price of wheat, made up and published in the manner required by law, shall be for every quarter—

| | s. | d. | | s. | d. |
|---|---|---|---|---|---|
| Under 48s. the duty shall be..... | 10 | 0 | 51s. and under 52..... | 6 | 0 |
| 48s. and under 49..... | 9 | 0 | 52 " 53..... | 5 | 0 |
| 49 " 50..... | 8 | 0 | 53 and upwards..... | 4 | 0 |
| 50 " 51..... | 7 | 0 | | | |

*Barley, Bigg or Bear.*—Whenever the average price of barley, made up and published in the manner prescribed by law, shall be for every quarter—

| | s. | d. | | s. | d. |
|---|---|---|---|---|---|
| Under 26s. the duty shall be..... | 5 | 0 | 29s. and under 30..... | 3 | 0 |
| 26s. and under 27..... | 4 | 6 | 30 " 31..... | 2 | 6 |
| 27 " 28..... | 4 | 0 | 31 and upwards..... | 2 | 0 |
| 28 " 29..... | 3 | 6 | | | |

*Oats.*—Whenever the average price of oats, made up and published in the manner required by law, shall be for every quarter—

| | s. | d. | | s. | d. |
|---|---|---|---|---|---|
| Under 18s. the duty shall be..... | 4 | 0 | 20s. and under 21..... | 2 | 6 |
| 18s. and under 19..... | 3 | 6 | 21 " 22..... | 2 | 0 |
| 19 " 20..... | 3 | 0 | 22 and upwards..... | 1 | 6 |

*Rye, Peas, and Beans.*—For every quarter, a duty equal in amount to the duty payable on a quarter of barley.

*Wheat-meal and Flour.*—For every barrel, being 196 lbs., a duty equal in amount to the duty payable on 38¼ gallons of wheat.

*Barley-meal.*—For every quantity of 217½ lbs., a duty equal in amount to the duty payable on a quarter of barley.

*Oat-meal and Groats.*—For every quantity of 181½ lbs., a duty equal in amount to the duty payable on a quarter of oats.

*Rye-meal and Flour.*—For every barrel, being 196 lbs., a duty equal in amount to the duty payable upon 40 gallons of rye.

*Pea-meal and Bean-meal.*—For every quantity of 272 lbs., a duty equal in amount to the duty payable on a quarter of peas or beans.

If the produce of, and imported from any British possession out of Europe:—

Wheat, Barley, Bear or Bigg, Oats, Rye, Peas, and Beans, the duty shall be for every quarter, 1s.

Wheat-meal, Barley-meal, Oat-meal, Rye-meal, Pea-meal, and Bean-meal, the duty shall be for every cwt., 4½d.

## BRITISH CUSTOMS' DUTIES ON TIMBER, &c.

AN ACT TO ALTER CERTAIN DUTIES OF CUSTOMS.

The first clause repeals the previous act, and the second clause imposes, from and after the 5th of April, 1847, the duties as given in the following schedule:—

Upon timber and wood goods, not otherwise charged, viz:—

| | From and after April 5, 1847. | From and after April 5, 1848. |
|---|---|---|
| Timber or wood, not being deals, battens, boards, staves, handspikes, oars, lathwood, or other timber or wood, sawn, split, or otherwise dressed, except hewn, and not being timber or wood, otherwise charged with duty, the load of 50 cubic feet. | £1 0 0 | £0 15 |
| Deals, battens, boards, or other timber or wood, sawn or split, and not otherwise charged with duty, the load of 50 cubic feet.... | 1 6 0 | 1 0 0 |
| Staves, if exceeding 72 inches in length, 7 inches in breadth, or 3½ inches in thickness, the load of 50 cubic feet.... | 1 3 0 | 0 18 0 |
| Firewood, the fathom of 216 cubic feet | 0 8 0 | 0 6 0 |
| Handspikes, not exceeding 7 feet in length, the 120 | 0 16 0 | 0 12 0 |
| Exceeding 7 feet in length, the 120 | 1 12 0 | 1 4 0 |
| Knees, under 5 inches square | 0 8 0 | 0 6 0 |
| " 5 inches and under 8 inches square, the 120 | 1 12 0 | 1 4 0 |
| Lathwood, the fathom of 216 cubic feet | 1 12 0 | 1 4 0 |
| Oars, the 120 | 6 0 0 | 4 10 0 |
| Spars, or Poles, under 22 feet in length, and under 4 inches in diameter, the 120 | 0 16 0 | 0 12 0 |
| 22 feet in length and upwards, and under 4 inches in diameter, the 120 | 1 12 0 | 1 4 0 |
| of all lengths, 4 inches and under 6 inches in diameter, the 120 | 3 4 0 | 2 8 0 |
| Spokes for wheels, not exceeding 2 feet in length, the 1,000 | 1 12 0 | 1 4 0 |
| Exceeding 2 feet in length, the 1,000 | 3 4 0 | 2 8 0 |

Wood, planed, or otherwise dressed or prepared for use, and not particularly enumerated, nor otherwise charged with duty, 6d. per foot of cubic contents, and further for every £100 value, £10, from and after April 5, 1847; and 4d. per foot of cubic contents, and further for every £100 value, £10, from and after April 5, 1848.

Or, in lieu of the duties imposed upon wood by the load, according to the cubic content, the importer may have the option, at the time of passing the first entry, of entering battens, batten ends, boards, deals, deal ends, and plank, by tale, if of or from foreign countries, according to the following dimensions, from and after April 5, 1847, viz:—

Battens and batten ends, not above 7 inches in width, the 120—

| | Not above 1¼ in. in thickness. | Above 1¼, not above 2½ in. |
|---|---|---|
| Not above 6 feet in length | £1 4 8 | £2 9 3 |
| Above 6 and not above 9 feet long | 1 16 11 | 3 13 10 |
| " 9 " 12 " | 2 9 3 | 4 18 6 |
| " 12 " 15 " | 3 1 7 | 6 3 2 |
| " 15 " 18 " | 3 13 10 | 7 7 8 |
| " 18 " 21 " | 4 6 2 | 8 12 4 |

**Boards, deals, deal ends, and plank, not above 9½ inches in width, the 120—**

| | Not above 1½ in. in thickness. | Above 1½, not above 3½ in. |
|---|---|---|
| Not above 6 feet long | £1 19 6 | £3 19 0 |
| Above 6 and not above 9 feet long | 2 19 3 | 5 18 6 |
| " 9 " 12 " | 3 19 0 | 7 18 0 |
| " 12 " 15 " | 4 18 10 | 9 17 8 |
| " 15 " 18 " | 5 18 7 | 11 17 2 |
| " 18 " 21 " | 6 18 5 | 13 16 8 |

**Above 9½ inches, and not above 11½ in width, the 120—**

| | | |
|---|---|---|
| Not above 6 feet long | £2 7 10 | £4 15 8 |
| Above 6 and not above 9 feet long | 3 11 8 | 7 3 4 |
| " 9 " 12 " | 4 15 7 | 9 11 2 |
| " 12 " 15 " | 5 19 7 | 11 19 2 |
| " 15 " 18 " | 7 3 6 | 14 7 0 |
| " 18 " 21 " | 8 7 6 | 16 15 0 |

In lieu of the duties of customs now chargeable on the articles hereinafter next mentioned, imported into the United Kingdom, the following duties shall be charged from and after June 1, 1846, that is to say:—

| Seeds, per cwt., viz.— | s. | d. | | s. | d. |
|---|---|---|---|---|---|
| Canary | 5 | 0 | Of and from a British Possession | 2 | 6 |
| Caraway | 5 | 0 | " " " | 2 | 6 |
| Carrot | 5 | 0 | " " " | 2 | 6 |
| Clover | 5 | 0 | " " " | 2 | 6 |
| Leek | 5 | 0 | " " " | 2 | 6 |
| Mustard | 1 | 3 | " " " | 0 | 7½ |
| Onion | 5 | 0 | " " " | 2 | 6 |

All other seeds not particularly enumerated or described, or otherwise charged with duty, for every £100 value ..... £5 0 0

Of and from a British Possession, for every £100 value ..... 2 10 0

ARTICLES ADMITTED FREE OF DUTY.

No duties of customs shall be chargeable upon the goods, wares, and merchandise hereinafter next mentioned, that is to say:—

Animals, living, viz.—Asses, Goats, Kids, Oxen and Bulls, Cows, Calves, Horses, Mares, Geldings, Colts, Foals, Mules, Sheep, Lambs, Swine and Hogs, Pigs sucking.

Bacon. Beef, fresh or slightly salted; Beef, salted, not being corned Beef. Bottles, of earth and stone, empty.

Casts of Busts, Statues, or Figures. Caviare. Cherry Wood, being furniture wood. Cranberries. Cotton Manufactures, not being articles wholly or in part made up, not otherwise charged with duty.

Enamel. Gelatine. Glue.

Hay. Hides, or pieces thereof, tawed, curried, varnished, japanned, enamelled; Muscovy or Russia Hides, or pieces thereof, tanned, colored, shaved, or otherwise dressed, and Hides or pieces thereof in any way dressed, not otherwise enumerated.

Ink for printers. Inkle, wrought.

Lamp Black. Linen, viz., plain Linens and Diaper, whether chequered or striped with dye yarn or not, and manufactures of Linen, or of Linen mixed with cotton, or with wool, not particularly enumerated, or otherwise charged with duty, not being articles wholly or in part made up.

Magna Græcia Ware. Manuscripts. Maps and Charts, or parts thereof, plain or colored. Mattresses. Meat, salted or fresh, not otherwise described. Medals of any sort.

Palmetto Thatch Manufactures. Parchment. Partridge Wood, being furniture wood. Pens. Plantains. Potatoes. Pork, fresh; salted, not hams. Purple Wood, being furniture wood.

Silk, Thrown, dyed, viz., Singles and Tram, Organzine or Crape Silk.

Telescopes. Thread not otherwise enumerated or described.

Woollens, viz., Manufactures of Wool, not being goat's wool, or of wool mixed with cotton, not particularly enumerated or described, not otherwise charged with duty, not being articles wholly or in part made up.

Vegetables, all, not otherwise enumerated or described. Vellum.

ADDITIONAL ARTICLES FREE BY 9 AND 10 VICT., c. 102.

Mill Stones, rough, shaped, or hewn. Burr Stones, rough, shaped, or hewn. Quern Stones, rough, shaped, or hewn. Dog Stones, rough, shaped, or hewn.

Raw Worsted Yarn, not dyed nor colored, and not being fit or proper for embroidering or other fancy purposes.

Dunnage Mats, not being of greater value than 10s. the 100.

## EAST INDIES.—FREE PORTS.

The Singapore Free Press of October 7th, contains the proclamation of the Governor-General of Netherlands India, declaring Macassar a free port. After a preamble, declaring the desire of the Governor to "promote the trade and industry of the manifold islands and possessions of Netherlands India," the Governor declares as follows:—

1st. That from and after the 1st of January, 1847, the town of *Macassar* shall be a free port, where goods of every description whatsoever, and without reference to the flag, may be freely imported and exported without payment of duties, either on the cargo, or of tonnage, harbor, or anchorage dues on the ships, and without the traders being subject to any formalities on the score of import or export duties.

2d. That, therefore, the regulations bearing on the importation, the sale, and possession of fire-arms and gunpowder, fixed by the decree of 8th August, 1828, No. 26, for the harbor and town of Macassar, are abrogated, and consequently the free admission and exportation of munitions of war at the place is granted by these presents.

3d. That the importation and exportation of opium, at Macassar, will likewise be free, and subject to no restrictive regulations; with the understanding, however, that the traders in opium will have to conform to the local regulations in reference to the opium farm.

4th. That of the Chinese junks which are discharged at Macassar, the tax, imposed by article 20 of the publication of 28th August, 1818, and the resolution of 4th October, 1819, No. 20, will be no longer claimed, nor that on behalf of the Chinese hospital, prescribed by resolution of 5th March, 1832, No. 1.

5th. That in the remaining places, situated in the government districts of Macassar, no import or export duties will be levied on goods, imported or exported by native craft, from or to Macassar, while no square-rigged vessels will be admitted at those ports.

6th. That the Governor of Macassar will be at liberty to admit foreigners, and to allow them to establish themselves temporarily at the said place for the purposes of trade; and that no one should pretend ignorance on this score, the present will be published and pasted up wherever it be necessary. Ordain, &c.

Given at Buitenzorg, 9th September, 1846.

## NEW REGULATIONS OF THE FRENCH WEST INDIA ISLANDS.

The following is an epitome of the new regulations in the port of Guadaloupe, and through the whole of the French Islands:—Allows foreign vessels to come to anchor within the harbor and lay 24 working hours, by paying 11 francs ($2 03.) The pilotage is due if the vessel take a pilot to come in or go out. The vessel must have her manifest ready so as to be delivered up to the customs when required. Under this new law, the wheat flour is 33c., colonial duty, 19c.—total, 52c.

## NEW COMMERCIAL REGULATIONS OF CUBA.

A royal order has been issued in Havana, making Indian corn and corn-meal free of duty at the ports of Havana, Matanzas, Cardenas and Mariel, for six months, commencing Jan. 16th, 1847. Vessels arriving or departing in ballast, will no longer have to pay mud-machine dues, or for health visits, or for Moro pass. The mud-machine dues for foreign vessels, are 1½ rials per ton; health visits, ½ of a rial per ton.

# NAUTICAL INTELLIGENCE.

## LIGHT-TOWER AT BRUSTERORT.

From the 15th December, 1846, a light will be placed on the light-tower which has been erected at Brusterort, instead of the two beacons which have hitherto been lighted. The tower stands in 50° 57′ 50″ north latitude, and 19° 59′ 30″ longitude = 1hr. 19′ 58″ in time from Greenwich, and is built in octagon form of rough brick. The base of the tower is 107 feet, 2 inches, 8 lines above the medium height of the Baltic; the axis of the light 82 feet above the ground; consequently 189 feet 2 inches, 8 lines above the medium level of the Baltic sea. The light is a Fresnel fire of the second rank, to common view a fixed light, which however is interrupted from 4 to 4 minutes by a brighter glare, which is preceded and followed by a short obscuration. It illumines 5-6 of the horizon from S. W. to S. S. E., and may be seen from on board a small vessel, at 10 feet elevation of the observer above the level of the sea, 5 geographical miles; at 30 feet elevation of the observer, 5½ geographical miles; from the masthead of a large vessel, at 100 feet elevation of the observer above the level of the sea, 7 geographical miles.

Royal Government, Section of the Interior.

*Koenigsberg, 14th November*, 1846.

## HALIFAX—LIGHT-HOUSE ON BEAVER ISLAND.

A light-house has been recently erected and is now in operation on the south end of the outer Beaver, or William's, Island, to the eastward of Halifax, and is a revolving light, visible 1½ minutes, and dark ½ a minute; the lantern is placed on a square building 70 feet above the level of the sea, and is painted white, with two black balls painted on the seaward side to distinguish it in the day-time.

The following bearings and distances have been taken by order of Admiral Sir F. W. Austen, the naval commander-in-chief on this station, as follows:—

Latitude 44° 47′ 49″ N., by meridian altitude of sun; longitude, by chronometer, 62° 25′ 18″ W., or 1° 12′ 36″ E. of the dock-yard, Halifax. Variation 19′ 00′ W.

BEARINGS MAGNETIC.

| | | | |
|---|---|---|---|
| Sambro Light-house, | S. 84 07 | W. 54 | miles. |
| Canso Light-house, | N. 81 39 | E. 70 | " |
| White Islands, south point, | N. 88 | E. 9½ | " |
| Westernmost (dry) Bird Ledge, | S. 84 | W. 5 | " |
| Harbor Rock, | N. 9 | W. 3 | " |
| Goose Island Point and Sutherland Island Point, in one, | N. 18 | W. | |

A reef extends from the east end of Beaver Island a considerable distance, so that on entering the bay you should give the light-house a berth of three-quarters of a mile. This harbor is a good one. Inside Beaver Island the anchorage is not very good, but further up the bay there is a good anchorage, by giving the light a berth of half or three-quarters of a mile, and steering N. N. W.

S. Cunard,
Thos. Maynard,
J. P. Miller,
} *Commissioners of Light-houses.*

A Fog Bell, worked by machinery, has been erected on the southwest light-house on St. Paul's island, off Cape North.

## LANTERN ON THE LIGHT-TOWER OF THUNOE.

The lantern on the light-tower of Thunoe has been heightened one and a half feet, and replaced by an iron lantern, with large glass squares, which since Sept. 10, 1846, has been kept burning during the same hours as all other Danish lights, and is being visible over the whole horizon at the distance of three German miles.

## ANTON LIZARDO, SACRIFICOS, AND GREEN ISLAND.

ERROR IN CHARTS.—DIRECTIONS FOR ENTERING THE HARBORS.

The annexed letter from the commander of the United States ship Princeton, dated on board U. S. ship Princeton, Anton Lizardo, 5th January, 1847, contains important information for navigators coming from the North:—

SIR:—There are a number of vessels coming from the North to this anchorage, and if they run by the charts they must go on shore. The chart of Sir John Philliman, of 1824, calls Blanquilla, (forming the entrance to this, one of the best harbors in the world,) an island, when it is a shoal.

Directions for entering Anton Lizardo, Sacrificos, and Green Island, cannot be mistaken. Therefore bring N. W. by N., and steer S. E. by E., (compass bearing,) this will carry you in sight of Blanquilla, a shoal which breaks. When you are two miles from Green Island you can see a blank on the hills on your larboard bow; there are a number of patches, but this is the largest and most southerly—steer for it. As you approach, you will observe the houses and lime-kiln on Anton Lizardo, steer for them, keeping them open on the larboard bow, until you near Blanquilla shoal; as you pass in, keep a cable's length from the light green water, the shoal on your larboard hand. You will be steering about S. E. by E., doubling to E. ½ N., (you will now be one mile from the beach where there is a breaker thence extending from 300 to 400 yards towards Blanquilla,) here your eye and lead are your best guide; do not go in less than 6 or 8 fathoms on the Blanquilla side of the channel. If you shoal your water, steer towards the shore, and you will deepen from 8 to 16 fathoms, and from 16 quick to 8 and 2 fathoms. The channel is half a mile wide at least. As soon as you pass Blanquilla, or as soon as it is on with Salamidinilla, which is the southern and eastern island, you can haul up gradually to the eastward, steering where you please. Blanquilla bears W. ½ N., and Salamidinilla N. ½ N., from this ship; we are in 6 fathoms water, good holding ground, about 1 mile from the island, where at present you will see coal, a small house, etc. Very respectfully yours, etc. F. ENGLE, *Commander.*

## FLOATING LIGHTS ON THE COAST OF IRELAND.

The Corporation for preserving and improving the port of Dublin have given notice, that on and after the 1st January, 1847, gongs will be substituted for the fog bells at present in use on board their light-ships, viz.:—

The light-ship at the north end of the Kish Bank.

The light-ship near the south end of the Arklow Bank.

The light-ship near the Coningbeg Rock (Saltees.)

And after the period above mentioned, whenever the weather may be thick and foggy, so as to require such signal for the safety of shipping, a gong will be sounded on board each of these light-ships, of which masters of vessels navigating the St. George's Channel are requested to take notice.

## THE SHIPPING OF FIVE AMERICAN STATES.

The Salem Gazette gives the following comparative statistics of the amount of tonnage owned, and the amount built, by the four States that stand highest in the list, for the years 1845 and '46:—

TONNAGE OWNED.

| | 1845. Tons. | 1846. Tons. | | 1845. Tons. | 1846. Tons. |
|---|---|---|---|---|---|
| New York,..... | 625,875 | 655,695 | Maine,..... | 320,059 | 358,123 |
| Massachusetts,... | 524,994 | 541,520 | Louisiana,..... | 170,525 | 181,258 |

TONNAGE BUILT.

| | 1845. Tons. | 1846. Tons. | | 1845. Tons. | 1846. Tons. |
|---|---|---|---|---|---|
| Maine,..... | 21,105 | 49,747 | Massachusetts,.... | 25,961 | 24,311 |
| New York,..... | 29,345 | 33,253 | Pennsylvania,.... | 25,819 | 15,784 |

# COMMERCIAL STATISTICS.

## AD VALOREM AND SPECIFIC DUTIES IN 1844, 1845, AND 1846.

We give below a statement exhibiting the value of merchandise imported into the United States paying duty, the amount of duty which accrued on the same, and also the rate per centum ad valorem of the said duties on the respective values, during the years 1844, 1845, and 1846, derived from the Treasury Department, Register's Office, Dec. 7, 1846:—

| Period of importation. | Value paying duty. | Duties. | Rate per ct. ad valorem. |
|---|---|---|---|
| 1844.—Imported ad valorem goods..... | $52,315,291 | $14,449,348 03 | 27.62 |
| Imported specific articles..... | 31,352,863 | 14,531,208 77 | 46.34 |
| Total ad valorem and specific.. | $83,668,154 | $28,980,556 80 | 34.64 |
| 1845.—Imported ad valorem goods..... | $60,191,862 | $16,278,117 22 | 27.04 |
| Imported specific articles..... | 34,914,862 | 14,540,737 65 | 41.64 |
| Total ad valorem and specific.. | $95,106,724 | $30,818,854 87 | 32.40 |
| 1846.—Imported ad valorem goods..... | $60,660,453 | $16,521,117 12 | 27.23 |
| Imported specific articles..... | 36,263,605 | 13,859,582 18 | 38.21 |
| Total ad valorem and specific.. | $96,924,058 | $30,378,699 30 | 31.34 |

| | |
|---|---|
| 1844.—Excess of specific duties over ad valorem..... | $81,860 74 |
| 1845.—Excess of ad valorem duties over specific..... | $1,737,379 57 |
| 1846.—Excess of ad valorem duties over specific..... | 2,663,534 94 |
| Excess in 1845 and 1846..... | 4,400,914 51 |
| Deduct excess of specific duties in 1844..... | 81,860 74 |
| Excess in three years of ad valorem duties over the specific..... | $4,320,053 77 |

## FOREIGN AND COASTWISE EXPORTS OF NEW ORLEANS.

The books of the custom-house at New Orleans, furnish the following statement of exports coastwise, and to foreign countries, from that port, in each month of 1846, as compared with the same time in 1845:—

| | VALUE OF EXPORTS, 1846. | | VALUE OF EXPORTS, 1845. | |
|---|---|---|---|---|
| | Coastwise. | Foreign. | Coastwise. | Foreign. |
| January,..... | $2,753,227 58 | $2,230,444 | $1,813,290 54 | $2,139,818 |
| February,..... | 4,098,438 10 | 3,231,883 | 3,989,422 51 | 2,446,627 |
| March,..... | 4,257,781 96 | 3,875,974 | 2,588,658 00 | 3,003,578 |
| April,..... | 3,312,544 30 | 2,762,392 | 2,778,268 13 | 3,638,461 |
| May,..... | 2,391,860 37 | 4,145,943 | 1,456,033 67 | 3,482,029 |
| June,..... | 1,298,421 85 | 3,586,827 | 928,418 17 | 2,196,781 |
| July,..... | 1,119,458 11 | 3,418,940 | 767,220 40 | 2,306,675 |
| August,..... | 904,416 10 | 1,675,012 | 527,130 20 | 489,627 |
| September,..... | 454,206 25 | 581,178 | 505,665 00 | 773,484 |
| October,..... | 603,798 05 | 1,236,408 | 811,002 67 | 1,897,039 |
| November,..... | 1,058,071 21 | 1,906,896 | 1,615,976 55 | 3,799,302 |
| December,..... | 2,438,601 60 | 4,066,685 | 1,368,647 00 | 3,046,948 |
| Total,..... | $24,790,825 08 | $32,708,582 | $19,149,741 84 | $28,211,569 |

Total amount of exports in 1846, $57,499,407 08; in 1845, $47,361,310 84; showing an increase, in 1846, of $10,138,096 24.

## WHALE FISHERY OF THE UNITED STATES, IN 1846.

We publish below, as usual, the annual statement of the whale fishery of the United States, made up at New Bedford, and originally published in the Whaleman's Shipping List. The imports of sperm and whale oils, and whalebone, into the United States, for 1846, made up from the gauger's report of the different cargoes, except 367 barrels sperm and 20 whale oil, which is put down as reported, and actual weight of whalebone, except import per brigs Bull and Chenamus, and bark Alioth, have been as follows:—

IMPORTS OF SPERM AND WHALE OIL, AND WHALEBONE, INTO THE UNITED STATES, IN 200 SHIPS, BARKS, ETC., DURING THE YEAR 1846.

| Ports. | Ships and barks. | Brigs, schs. &c. | Bbls. sperm oil. | Bbls. whale oil. | Lbs. whalebo'e. |
|---|---|---|---|---|---|
| New Bedford, | 59 | 1 | 38,380 | 80,812 | 456,900 |
| Do. in Merchantmen, | 1 | 1 | 300 | 215 | 256,025 |
| Fairhaven, | 12 | 0 | 12,049 | 15,475 | 101,449 |
| Mattapoisett, | 4 | 3 | 1,809 | 1,517 | 24,000 |
| Sippican, | 1 | 1 | 374 | 1,515 | 6,600 |
| Wareham, | 0 | 1 | 672 | ..... | ..... |
| Westport, | 5 | 2 | 2,918 | 71 | ..... |
| Dist. of New Bedford, | 82 | 11 | 56,512 | 99,605 | 844,974 |
| Holmes' Hole, | 1 | 0 | 1,062 | 1,020 | 9,400 |
| Edgartown, | 1 | 1 | 731 | 2,010 | 19,000 |
| Nantucket, | 10 | 3 | 15,151 | 1,731 | 14,000 |
| Do. in Merchantmen, | 1 | 0 | 1,828 | ..... | ..... |
| Provincetown, | 1 | 17 | 4,672 | 282 | ..... |
| Plymouth, | 2 | 1 | 2,455 | 8 | ..... |
| Boston, | 1 | 1 | 533 | 60 | ..... |
| Do. in Merchantmen, | 1 | 3 | 2,040 | ..... | 40,000 |
| Fall River, | 2 | 0 | 369 | 4,070 | 24,266 |
| Somerset, | 1 | 0 | 109 | 18 | ..... |
| Bristol, | 2 | 1 | 977 | 3,601 | 14,600 |
| Warren, | 6 | 0 | 2,324 | 6,633 | 20,200 |
| Providence, | 2 | 0 | 140 | 5,096 | 34,000 |
| Newport, | 3 | 1 | 1,584 | 230 | 1,200 |
| Stonington, | 5 | 0 | 1,055 | 9,169 | 71,900 |
| Mystic, | 2 | 0 | 78 | 4,130 | 40,400 |
| New London, | 13 | 3 | 1,307 | 27,441 | 183,450 |
| Bridgeport, | 1 | 0 | 130 | 2,500 | 7,500 |
| Sag Harbor, | 14 | 0 | 1,076 | 29,295 | 138,832 |
| Do. bro't on freight, | ... | ... | 154 | ..... | 66,186 |
| Greenport, | 2 | 0 | 120 | 3,106 | 30,574 |
| Cold Spring, | 3 | 0 | 366 | 7,125 | 36,457 |
| N. York in Merchantmen, | 3 | 0 | 448 | 363 | 680,000 |
| Total, | 159 | 41 | 95,221 | 207,493 | 2,276,939 |

AVERAGE VOYAGES MADE BY SPERM AND RIGHT WHALERS, IN EACH YEAR, FROM 1842 TO 1846, INCLUSIVE, WITH AVERAGE TIME ABSENT AND QUANTITY OF OILS BROUGHT HOME.

| | Sperm. | Whale |
|---|---|---|
| In 1842, 55 sperm whalers arrived, average absence 41 months, 8 days, with average cargoes of | 1,793 | 135 |
| In 1842, 74 two season right whalers arrived, average time absent 24½ months, with average cargoes of | 422 | 1,722 |
| In 1842, 18 one season right whalers arrived, average time absent 10½ months, with average cargoes of | 122 | 1,602 |
| In 1842, 65 Atlantic sperm whalers arrived, average time absent 13 months, 28 days, with average cargoes of | 280 | 12 |

ARRIVALS IN 1843.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 70 sperm whalers, | average absence | 41 | m. | 13 | d., average cargo, | 1,641 | 124 |
| 90 2 season rt. do. | " | 25 | | 10 | " | 311 | 1,937 |
| 15 1 " | " | 11 | | 28 | " | 92 | 1,398 |
| 55 Atlantic sp. whalers | " | 14 | | 20 | " | 285 | 25 |

ARRIVALS IN 1844.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 69 sperm whalers, average absence | 43 | m. | 00 | d., average cargo,..... | | 1,419 | 293 |
| 112 2 seas. rt. do. | " | 25 | 09 | " | ..... | 248 | 2,050 |
| 7 1 " | " | 11 | 14 | " | ..... | 69 | 1,176 |
| 42 Atlantic sp. whalers | " | 12 | 00 | " | ..... | 248 | 38 |

ARRIVALS IN 1845.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 91 sperm whalers, average absence | 48 | | 21 | " | ..... | 1,291 | 387 |
| 101 2 seas. rt. do. | " | 24 | 00 | " | ..... | 196 | 2,180 |
| 8 1 " | " | 12 | 04 | " | ..... | 55 | 796 |
| 43 Atlantic sp. whalers | " | 13 | 07 | " | ..... | 238 | 76 |

ARRIVALS IN 1846.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 42 sperm whalers, average absence | 41 | | 06 | " | ..... | 1,350 | 280 |
| 94 2 season rt. do. | " | 30 | 02 | " | ..... | 225 | 2,034 |
| 1 1 " | " | 12 | 02 | " | ..... | ..... | 2,005 |
| 48 Atlantic sp. whalers | " | 14 | 07 | " | ..... | 250 | 14 |

Total.—Whole number of vessels employed in the whale fishery, January 1, 1847, 670 ships and barks, 31 brigs, 20 schrs., 1 sloop,..... 230,218 tons.
Whole number employed in the fishery, January 1, 1846, 678 ships and barks, 35 brigs, 21 schrs., and 1 sloop,..... 237,189 "
Showing a diminution in the whaling fleet of 8 ships, 4 brigs, and 1 schr., in 1846, amounting to..... 2,971 "

Oil and bone shipped home from outward bound, and wrecked and condemned whalers, and brought home by whalers that had not completed their voyages, returned in consequence of some disaster, 4,953 bbls. sperm, and 1,705 bbls. whale oil, and 976,000 lbs. whalebone.

IMPORTS OF SPERM AND WHALE OIL,

*From January 1st, 1838, to January 1st, 1844, and Oil and Bone, from January 14th, 1844, to January 1st, 1847.*

| | Sperm. | Whale. | Bone. | | Sperm. | Whale. | Bone. |
|---|---|---|---|---|---|---|---|
| 1838..... | 132,356 | 226,552 | ..... | 1843..... | 166,985 | 206,727 | ..... |
| 1839..... | 142,836 | 229,783 | ..... | 1844..... | 139,594 | 262,047 | 2,532,537 |
| 1840..... | 157,791 | 207,908 | ..... | 1845..... | 157,917 | 272,730 | 3,167,142 |
| 1841..... | 159,304 | 207,348 | ..... | 1846..... | 95,217 | 207,463 | 2,276,939 |
| 1842..... | 165,637 | 161,041 | ..... | | | | |

STATEMENT OF SPERM AND WHALE OIL, AND WHALEBONE ON HAND, JANUARY 1, 1847.

| | Sperm. | Whale. | Bone. | | Sperm. | Whale. | Bone. |
|---|---|---|---|---|---|---|---|
| New Bedford,..... | 2,459 | 4,300 | 117,800 | Newport,..... | 191 | ..... | ..... |
| Fairhaven,..... | 1,335 | 600 | 5,000 | Sag Harbor,..... | ..... | 125 | ..... |
| Westport,..... | 1,400 | ..... | ..... | New York,..... | ..... | ..... | ..... |
| Mattapoisett,..... | 54 | ..... | ..... | | | | |
| Nantucket,..... | 7,500 | 700 | ..... | Total,..... | 14,614 | 7,775 | 122,800 |
| Warren,..... | 1,675 | 2,050 | ..... | | | | |

## THE AMERICAN WHALE FISHERY.

Henry P. Havens, Esq., of New London, has furnished us with the following additional particulars to the article which appeared in the Merchants' Magazine for January, 1847. They were intended to accompany that article, but were received too late.

The North Pacific Ocean, from coasts of America and Kamtschatka, lat. 35° to 60°, called northwest coast, is the "ground" where most of the right whale oil taken by American ships is procured. The large size and abundance of whales in this region have attracted a large proportion of the vessels engaged in this department of the business; and it is estimated that 315 ships from the United States have fished there during the present year. The whales are taken here during the warm months, say from 1st May to 1st October.

It is believed that the North Pacific was first visited for right whales in 1839. The following table will show the success of the vessels cruising on that ground since that time:—

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1839,..... | 2 ships, | averag'g | 1,400 | barrels, is..... | 2,800 | barrels. |
| 1840,..... | 3 | " | 587 | " ..... | 1,760 | " |
| 1841,..... | 20 | " | 1,412 | " ..... | 28,200 | " |
| 1842,..... | 29 | " | 1,627 | " ..... | 47,200 | " |
| 1843,..... | 108 | " | 1,349 | " ..... | 146,800 | " |
| 1844,..... | 170 | " | 1,528 | " ..... | 259.570 | " |
| 1845,..... | 263 | " | 953 | " ..... | 250,600 | " |

It will be seen above that although the quantity of oil taken last year (1845,) was nearly as large as any year previously, yet the average fell off from 1844, 37 per cent. There being a large number of vessels fishing on the northwest the present year, a still smaller average is feared.

Nantucket has probably undergone fewer changes, as far as the extent of its interest in the whale fishery is concerned, for the past twenty-five years, than any other place.

In 1820, 72 ships were owned at Nantucket; 1829, 60; 1834, 71; 1839, 77; 1844, 77; 1846, 72; whereas, in New Bedford, there were in 1828, 67 ships; 1846, 252; and in New London in 1820, 1 ship; 1846, 69.

Notice has lately appeared in our newspapers, taken from English files, that the South Sea whale fishery was about to be revived in Great Britain. The Americans will probably have little to fear from the rivalry of the English, as the southern fishery almost entirely run out in England with a prohibitory duty of £26 10s. per tun on whale oil imported into Great Britain; and after 1st January, 1847, it will go in duty free.

## EXPORTS OF THE UNITED STATES.

A COMPARATIVE VIEW OF THE EXPORT TRADE OF THE NORTHERN AND SOUTHERN STATES.

The following statement is copied from a correspondent of the Journal of Commerce:—

"From the statistics of our export trade for the last few years, we perceive that it is assuming altogether a new aspect. Heretofore our principal exports have consisted of cotton, tobacco, and rice,—all the productions of the Southern States. Within the last few years, the exports of the manufactures and productions of the North have fast increased. It was not until I had compiled the annexed table, that I could credit the great increase. It appears that of the exports of domestic produce and manufactures for the year 1846, 43 per cent are from the Northern States; that the excess of the exports of the South over the North, in 1845, was $31,000,000; in 1846, only $14,000,000; that in 1845, the exports of the South were 66 per cent of the whole; the North, 34 per cent; and in 1846, the South, 57 per cent; the North, 43 per cent.

EXPORTS FOR THE YEARS 1845 AND 1846, CLASSIFIED.

| Productions. | 1845. North. | 1845. South. | 1846. North. | 1846. South. |
|---|---|---|---|---|
| Sea,..... | $4,500,000 | ..... | $3,400,000 | ..... |
| Skins and furs,..... | 1,400,000 | ..... | 2,300,000 | ..... |
| Forest,..... | 3,300,000 | $1,800,000 | 3,400,000 | $2,000,000 |
| Produce of animals,..... | 6,200,000 | ..... | 7,800,000 | ..... |
| Vegetable food,..... | 6,800,000 | 3,200,000 | 15,400,000 | 4,000,000 |
| Tobacco,..... | ..... .... | 8,000,000 | ..... | 9,100,000 |
| Cotton,.....!..... | ..... | 51,700,000 | ..... | 42,700,000 |
| Manufactures,..... | 9,300,000 | ..... | 8,800,000 | ..... |
| Lead,..... | 340,000 | ..... | 600,000 | ..... ..... |
| Wool,..... | ..... | ..... | 200,000 | ..... |
| Not enumerated,..... | 2,000,000 | 480,000 | 2,300,000 | 500,000 |
| | $33,940,000 | $65,180,000 | $44,200,000 | $58,300,000 |
| | | 33,940,000 | | 44,200,000 |
| | | $31,240,000 | | $14,100,000 |

"In the above table we have used round numbers, which is sufficiently accurate for all common purposes. The export of Northern produce in 1846, is much greater than in 1845. If the increase of 1847 exceed that of 1846, as that year exceeded 1845, in all probability the exports of the Northern States will exceed those of the Southern."

## COMPARATIVE WEIGHT OF BALES OF COTTON,

AT THE PORTS OF NEW ORLEANS, MOBILE, CHARLESTON AND SAVANNAH.

James E. Saunders, Collector of Customs at Mobile, having been requested by those interested in the cotton trade, to ascertain, with reasonable certainty, the quantity of cotton produced in the year 1845, in pounds—the average weights of bales at each of the ports where the article is received for shipment—and whether any increase or decrease is accruing in that respect this season, (under date, Mobile, January 20th, 1847) addressed a letter of inquiry on these points to the collectors at New Orleans, Charleston and Savannah. To his inquiries, the collectors of those ports made a prompt reply, which, together with records of the office at Mobile, we publish below:—

The books in our custom-house show only the portion of the crop shipped to foreign countries. Using this as a basis of calculation, with the prices current in the hands of every merchant, the results which follow have been obtained:

At New Orleans the average weight of the bales received last year, ending 31st August, 1846, was 450 pounds, and no information of any change this season.

At Mobile it was 489 pounds last season; and so far in this, 484 pounds.

At Charleston last season, and this, 360 pounds.

At Savannah it was 415 pounds last season, (including Upland and Sea Island) and 430 so far in this. The Upland has not increased beyond the average of last season, which was 432 pounds; but the result is due to the small quantity of Sea Island received this season, which does not average much over 300 pounds to the bale.

Table No. I. presents the number, average and aggregate weight of bales received at the southern ports of the United States, (exclusive of Texas,) of the crop of 1845—whole quantity, 905,880,739 pounds. The average weight of the bales in Florida, North Carolina and Virginia, is conjectural.

Table No. II. shows the receipts of the crop of 1846, up to the 8th January instant, an estimate of the total receipts during the season at each port, provided the same proportion be maintained throughout, *and* the crop amounts to two millions of bales. The quantity in such case would be in the aggregate, 859,880,739 pounds.

Table No. III. shows the deficit from the crop of 1845 in pounds, and in average bales of 440 pounds, should the crop of 1846 be respectively 2,000,000; or 1,900,000; or 1,800,000 bales.

TABLE I.

| | Rec'ts—Crop '45. | Av. Weight. | Total Weight. |
|---|---|---|---|
| New Orleans | 1,040,012 | 450 | 468,005,400 |
| Mobile | 421,966 | 489 | 206,341,374 |
| Florida | 139,880 | 415 | 57,635,200 |
| Gulf Ports | 1,600,858 | | 731,981,974 |
| Georgia | 184,563 | 415 | 76,593,645 |
| South Carolina | 248,766 | 360 | 89,555,760 |
| Virginia | 12,125 | 360 | 4,365,000 |
| North Carolina | 9,401 | 360 | 3,384,360 |
| Atlantic Ports | 454,855 | | 173,898,765 |
| Gulf Ports | 1,600,858 | | 731,981,974 |
| All the Ports | 2,055,713 | 440 | 905,880,739 |

TABLE II.

| | Rec'ts to Jan. 8. | Total Receipts. | Average. | Total Weight. |
|---|---|---|---|---|
| New Orleans | 324,000 | 867,250 | 450 | 390,262,500 |
| Mobile | 102,625 | 284,000 | 484 | 137,456,000 |
| Florida | 21,375 | 57,000 | 430 | 24,510,000 |
| Savannah | 118,162 | 316,250 | 430 | 135,987,500 |
| Charleston | 170,953 | 458,500 | 360 | 165,060,000 |
| North Carolina | 1,081 | 5,250 | .... | 1,890,000 |
| Virginia | 4,760 | 12,750 | .... | 4,590,000 |
| | 745,947 | 2,000,000 | | 859,756,000 |

TABLE III.

| If crop be | Deficit in lbs. | In av'ge bales. |
|---|---|---|
| 2,000,000 | 46,124,739 | 100,128 |
| 1,900,000 | 89,112,539 | 202,528 |
| 1,800,000 | 132,100,339 | 300,228 |

## PRICES OF WHEAT, FLOUR, HEMP, AND LEAD,

AT ST. LOUIS, FOR THE LAST THREE YEARS.

The following tables, derived from the St. Louis Price Current, exhibit the comparative monthly prices of four of the leading products of Missouri, in each month of the years 1844, 1845, and 1846:—

| | WHEAT. | | | FLOUR. | | |
|---|---|---|---|---|---|---|
| | 1846. | 1845. | 1844. | 1846. | 1845. | 1844. |
| | Cents. | Cents. | Cents. | Dollars. | Dollars. | Dollars. |
| January, | 70 a75 | 68 a70 | 65 a70 | 4 37½a4 50 | 3 62½a3 70 | 3 75 a4 00 |
| February, | 65 a68 | 60 a65 | 65 a70 | 4 00 a4 12½ | 3 60 a3 62½ | 3 75 a4 00 |
| March, | 63 a66 | 68 a70 | 75 a80 | 3 87½a4 00 | 3 60 a3 62½ | 3 95 a4 12½ |
| April, | 62½a65 | 65 a67 | 70 a75 | 3 50 a3 62½ | 3 45 a3 50 | 3 70 a3 75 |
| May, | 63 a65 | 68 a70 | 70 a72 | 2 95 a3 00 | 3 65 a3 70 | 3 70 a3 75 |
| June, | 50 a52 | 68 a70 | 60 a62½ | 3 05 a3 10 | 3 65 a3 70 | 3 50 a3 55 |
| July, | 38 a40 | 70 a73 | 50 a56 | 2 00 a2 25 | 3 70 a3 75 | 3 70 a3 75 |
| August, | 48 a50 | 50 a53 | 60 a65 | 2 50 a2 55 | 3 45 a3 50 | 3 75 a4 00 |
| September, | 50 a53 | 54 a56 | 65 a68 | 2 87½a3 00 | 3 00 a3 06¼ | 3 80 a3 90 |
| October, | 60 a63 | 62½a65 | 60 a62½ | 3 75 a3 80 | 3 12½a3 25 | 3 87½a4 00 |
| November, | 57 a59 | 75 a80 | 70 a73 | 3 80 a3 87½ | 3 70 a3 75 | 3 56 a3 60 |
| December, | 58 a60 | 85 a90 | 67 a70 | 3 75 a3 80 | 5 75 a6 00 | 3 75 a4 00 |

| | HEMP. | | | LEAD. | | |
|---|---|---|---|---|---|---|
| January, | $65a68 | $58a60 | $70a75 | $3 70a3 75 | $3 25a3 30 | $3 00a3 03½ |
| February, | 58a60 | 58a60 | 70a75 | 3 70a3 75 | 3 32a3 35 | 3 00a3 03 |
| March, | 58a60 | 58a60 | 76a80 | 3 40a3 45 | 3 10a3 12½ | 2 85a2 87 |
| April, | 52a55 | 62a65 | 73a75 | 3 20a3 25 | 3 08a3 10 | 2 76a2 78½ |
| May, | 48a50 | 68a70 | 70a73 | 2 90a2 95 | 3 00a3 03 | 2 85a2 87 |
| June, | 48a50 | 68a70 | 60a65 | 3 30a3 35 | 2 95a3 00 | 3 00a3 02 |
| July, | 46a48 | 70a75 | 58a60 | 3 25a3 30 | 3 32a3 35 | 2 90a2 92 |
| August, | 48a50 | 68a70 | 65a70 | 3 15a3 20 | 3 25a3 30 | 2 93a2 95 |
| September, | 44a46 | 65a68 | 70a72 | 3 25a3 30 | 3 45a3 47 | 3 00a3 05 |
| October, | 46a48 | 60a65 | 65a66 | 3 48a3 50 | 3 68a3 70 | 3 10a3 12 |
| November, | 48a50 | 65a68 | 63a65 | 3 70a3 75 | 3 80a3 85 | 3 45a3 50½ |
| December, | 56a60 | 62a65 | 60a62 | 3 80a3 85 | 4 00a3 03 | 3 25a3 37 |

## COMMERCE OF DETROIT, MICHIGAN.

The following is a table of certain articles of export of the Port of Detroit, for a series of years, affording evidence of the rapid growth of that important city:—

EXPORTS OF DETROIT.

| | 1846. | 1845. | 1844. | 1843. | 1842. |
|---|---|---|---|---|---|
| Wheat.....bush. | 114,397 | 230,610 | 112,350 | 106,180 | 98,930 |
| Flour.....bbls. | 464,092 | 225,430 | 296,170 | 263,080 | 180,210 |
| Fish..... | 9,305 | 6,675 | 5,850 | 6,760 | 11,895 |
| Pork..... | 2,621 | 954 | 2,620 | 3,075 | 10,466 |
| Ashes.....cks | 5,742 | 7,560 | 8,680 | 9,655 | 3,650 |
| Wool.....lbs. | 506,143 | 390,060 | 235,405 | 98,950 | 34,464 |
| Staves.....M | 4,346 | 1,840 | 397 | 612 | 773 |
| Total value..... | $2,495,333 | $2,000,000 | $1,747,000 | $1,587,000 | $1,108,000 |

The movement in breadstuffs, owing to the failure of the crop, fell off some 37,000 barrels in 1845, as compared with 1844, and was also 3,744 barrels lower than in 1843.

We append the equivalent of flour, and wheat reduced to barrels flour, sent off from Detroit in the above period:—

| | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|
| Bbls. Flour..... | 199,994 | 284,296 | 318,640 | 281,552 | 486,969 |

The total value of the exports of Michigan is as follows:—

| | |
|---|---|
| Exported from Detroit..... | $2,495,417 |
| " Monroe..... | 800,241 |
| " St. Joseph..... | 601,555 |
| " all others..... | 750,455 |
| Total of 1846..... | $4,647,668 |
| Total of 1840..... | 1,305,860 |
| Increase..... | $3,341,808 |

Flour, Wheat, Ashes and Lumber are the main staples. The whole amount exported was:

| | | |
|---|---|---|
| Wheat..... | bush. | 750,888 |
| Flour, equal to..... | | 3,442,666 |
| Total..... | bush. | 4,193,554 |

The crop of last year is estimated at 9,000,000 bushels, being within 2,000,000 bushels of the quantity raised in the State of New York, in 1840.

| | | |
|---|---|---|
| Wanted for home consumption..... | bush. | 2,000,000 |
| Wanted for Seed, Feed, &c..... | | 300,000 |
| Already shipped..... | | 4,193,554 |
| | | 6,493,554 |
| Leaving a surplus to come forward..... | | 2,506,446 |
| | | 9,000,000 |

## PRICES OF WHEAT IN EUROPEAN MARKETS,

### AT OR NEAR THE CLOSE OF THE YEAR 1846.

The following abstract of a circular of the Minister of Agriculture of France, addressed to all the Prefects, shows a comparative statement of the price of wheat in the principal markets:—

| Markets. | Periods. | Price per hectolitre, in fr'cs & c'times. |
|---|---|---|
| Antwerp, | November, | 26 71 |
| Amsterdam, | do. | 24 78 |
| Rotterdam, | October, | 25 57 |
| Dantzig, | November, | 22 53 |
| Berlin, | October, | 24 16 |
| Hamburg, | do. | 23 73 |
| Lubeck, | do. | 21 62 |
| Stettin, | do. | 22 64 |
| Trieste, | do. | 18 47 |
| Mayence, | do. | 27 50 |
| Bremen, | November, | 22 72 |
| Genoa, | October, | 21 53 |
| Nice, | November, | 21 37 |
| Ancona, | October, | 16 78 |
| Rome, | do. | 19 38 |
| Naples, | November, | 19 71 |
| Leghorn, | October, | 19 04 |
| Corunna, | October, | 19 46 |
| Murcia, | do. | 23 43 |
| Malaga, | do. | 19 68 |
| Belbar, | do. | 18 34 |
| Cadiz, | do. | 24 26 |
| Barcelona, | do. | 24 72 |
| London, | November, | 26 68 |
| Copenhagen, | October, | 18 68 |
| Christianio, | do. | 22 44 |
| Odessa, October, | Yellow Polish, | 14 to 16 fr'cs. |
| | Red " | 13 to 15 " |
| | Red Bessarabia, | 12 to 14 " |
| | Hard Wheat, | 10 to 13 " |
| Riga, | November, | 18 18 |
| St. Pet'sburgh, | October, | 16 88 |
| Alexandria, | do. | 12 58 |
| New York, | do. | 12 09 |

290-100 hectolitres are equal to one English quarter, so that the above table gives the following English prices per quarter—62s. 9d. for Antwerp; 62s. 1d. for London; 42s. 7d. for Trieste; 40s. 7d. for Copenhagen; 27s. 3d. for New York; 36s. 11d. for St. Petersburgh; the exchange being calculated at the current October and November rates, viz: 25 francs 70 centimes per pound sterling.

# RAILROAD AND CANAL STATISTICS.

## CANAL COMMERCE OF CLEVELAND, OHIO.

The following is a comparative statement of some of the principal articles of property that arrived at, or was cleared from Cleveland, by way of the Ohio Canal, during the years 1843, '44, '45, and '46:—

| | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|
| **ARRIVED.** | | | | |
| Flour.....bbls. | 577,369 | 494,099 | 378,732 | 368,355 |
| Pork | 13,177 | 36,561 | 19,984 | 42,996 |
| Beef | 3,050 | 2,656 | 4,019 | 1,308 |
| Whiskey | 14,612 | 12,097 | 18,612 | 17,744 |
| Linseed Oil | ..... | 1,896 | 1,217 | 967 |
| Pot and Pearl Ashes.....lbs. | 1,082,733 | 1,302,740 | 1,060,973 | 660.983 |
| Butter | 1,008,387 | 1,191,455 | 1,087,184 | 1,321,333 |
| Bacon | 1,926,666 | 1,722,628 | 863,914 | 1,494,821 |
| Lard | 1,649.835 | 1,540,155 | 782,734 | 1,073,444 |
| Tallow | 290,024 | 389,997 | 315,398 | 177,452 |
| Iron and Nails | 10,075,237 | 6,839,170 | 9,122,822 | 11,527,908 |
| Wool | 391,138 | 884,878 | 961,982 | 970,709 |
| Mineral Coal.....bushels | 387,834 | 540,355 | 889,880 | 893,806 |
| Corn | 227,694 | 263,508 | 164,967 | 527,270 |
| Oats | 30,222 | 24,565 | 48,041 | 50,184 |
| Wheat | 813,536 | 976,551 | 205,581 | 1,672,340 |
| Tobacco.....hhds. | 1,789 | 336 | 705 | 2,031 |
| Staves and Heading.....pieces | 246,229 | 641.444 | 714,084 | 719,397 |
| Stone.....perches | 1,287 | 3,795 | 15,055 | 8,690 |
| Wood.....cords | 4,487 | 4,863 | 5,862 | 5,080 |
| **CLEARED.** | | | | |
| Salt.....bbls. | 44,310 | 73,325 | 52,501 | 58,592 |
| Lake Fish | 6,689 | 7,900 | 10,358 | 9,042 |
| Merchandise.....lbs. | 13,250,758 | 11,552,460 | 10,986,708 | 10,796,129 |
| Furniture and Baggage | 1,118,781 | 1,099.608 | 849,891 | 663,225 |
| Gypsum | 2,064,955 | 2,201,123 | 1,711,753 | 1,116,578 |
| Castings | 299.235 | 199,225 | 342,859 | 638,485 |
| Machinery | 91,918 | 73,494 | 62,760 | 131,475 |
| Saleratus | ..... | 230,548 | 282,050 | 185,869 |
| Pot and Pearl Ashes | 155,096 | 111,183 | 132,696 | 170,826 |
| Other Salts of Ley | ..... | 203,700 | 476,435 | 263.038 |
| Marble | ..... | 369.601 | 551,083 | 1,028.197 |
| Hides and Skins | 77,060 | 37,799 | 121,521 | 23,362 |
| Clocks | ..... | 156,596 | 140,373 | 127,432 |
| Grindstones | 72,871 | 23,317 | 51,413 | 37.656 |
| Cheese | 34,888 | 75,594 | 30,854 | 77,551 |
| Lumber.....feet | 806,955 | 2,385,593 | 2,045,961 | 2,497,008 |
| Shingles | 3,139,000 | 3,134,750 | 3,251,000 | 1,913,250 |
| Flat Hoops | 1,279,400 | 571,850 | 777,000 | 1,473,680 |

## THE MASSACHUSETTS WESTERN RAILROAD.

The twelfth annual report of the directors of the Western Railroad corporation has been published. The directors, in order to be prepared to make the dividends payable on or about the 1st day of January or July in each year, and for the purpose of having more time to prepare their report for the Massachusetts Legislature, and likewise to have the financial year end at the same time with that of the Boston and Worcester Railroad corporation, have ordered the accounts to be made up to the 30th of November, in each year, instead of December 31st, as heretofore. In consequence of this change, the report of 1846, before us, embraces only the business for eleven months, from January up to Novem-

ber 30th, 1846. The amount of earnings for December, 1846, have been $76,000, which, added to the receipts for eleven months, will make the gross receipts of 1846, $954,417.89, and an increase over the year 1845, of $140,937.89.

The increase of business for the eleven months of 1846, as compared with the corresponding period in 1845, has been nearly 21 per cent, and 13.7 per cent on passengers, making an average gain of 17½ per cent, besides the amount which has been overcome by the reduction of passenger fares.

The following tables will give a comparative statement of the business of the road since the commencement; the number of through and way passengers, and the number of barrels of flour transported, during the last five years; the number of miles run during eleven months of 1846:—

COMPARATIVE STATEMENT OF THE BUSINESS OF THE ROAD.

| | Passengers. | Merchandise. | Mails, &c. | Total. | Expenses. | Bal. rec'ts. | Miles run. |
|---|---|---|---|---|---|---|---|
| 1839*.... | $13,472 | $4,136 | ..... | $17,609 | $14,380 | $3,228 | ..... |
| 1840..... | 70,820 | 38,359 | $3,166 | 112,347 | 62,071 | 50,275 | 94,404 |
| 1841..... | 113,841 | 64,467 | 4,000 | 182,308 | 132,501 | 49,807 | 160,106 |
| 1842†.... | 266,446 | 226,674 | 19,566 | 512,688 | 266,619 | 246,068 | 397,295 |
| 1843..... | 275,139 | 275,696 | 23,046 | 573,882 | 303,973 | 269,909 | 441,608 |
| 1844..... | 358,694 | 371,131 | 23,926 | 753,752 | 314,074 | 439,678 | 499,968 |
| 1845..... | 366,753 | 420,717 | 26,009 | 813,480 | 370,621 | 442,858 | 530,201 |
| 1846‡.... | 389,861 | 459,365 | 29,191 | 878,417 | 412,679 | 465,738 | 573,956 |

NUMBER OF WAY AND THROUGH PASSENGERS.

| | THROUGH PASSENGERS. | | WAY PASSENGERS. | | TOTALS. | | |
|---|---|---|---|---|---|---|---|
| | 1st class. | 2d class. | 1st class. | 2d class. | 1st class. | 2d class. | Grand Total. |
| 1842 | 15,890 | 2,680½ | 148,500 | 23,366 | 164,390 | 26,046½ | 190,436½ |
| 1843 | 19,987 | 6,608 | 140,425 | 33,945½ | 160,412 | 40,553½ | 200,965½ |
| 1844 | 17,016½ | 7,314 | 140,868½ | 55,058½ | 157,885 | 62,372½ | 220,257½ |
| 1845 | 13,401½ | 5,791 | 144,723 | 59,717½ | 158.124½ | 65,508½ | 223,633 |
| 1846 | 21,033 | 8,799½ | 165,196 | 70,635½ | 186,229 | 79,435 | 265.664 |
| | 87,328 | 31,193 | 739,712½ | 242,723 | 827,040½ | 273,916 | 1,100,956½ |

NUMBER OF BARRELS FLOUR TRANSPORTED FROM ALBANY AND TROY.

| | To Boston. | To other stations. | Total. |
|---|---|---|---|
| 1842..... | 85,986 | 86,124 | 172,110 |
| 1843..... | 123,366 | 120,873 | 244,239 |
| 1844..... | 154,413 | 142,990 | 297,403 |
| 1845..... | 181,796½ | 146,386½ | 328,183 |
| 1846..... | 209,634 | 151,711 | §361,345 |

NUMBER OF TONS TRANSPORTED IN ELEVEN MONTHS OF 1846.

| | |
|---|---|
| Through from Boston to Albany westward..... | 8,358 |
| All other tonnage..... | 40,251 |
| Total going west..... | 48,609 |
| Through from Albany to Boston, eastward..... | 36,403 |
| All other tonnage..... | 81,382 |
| Total going east..... | 117,785 |
| Total number of tons moved..... | 166,394 |
| Equivalent number of tons carried one mile..... | 15,748,223 |
| Equivalent number of tons carried over the whole road..... | 100,950 |

* Three months. † First year of opening through to Albany. ‡ Eleven months.

§ In December, 1846, the number of barrels transported to Boston, was... 23,286
Transported to other stations..... 12,208

Total number of barrels in December..... 35,494

Making the whole number of barrels transported in 1846..... 396,839

The distance from Albany to Boston, over the Boston and Worcester, the Western, and the Albany and Stockbridge Railroads, is 200 miles. The Boston and Worcester Road, 44 miles, the Western, connecting with the Boston and Worcester, at Worcester, 118 miles, and the Albany and West Stockbridge, connecting with the Western at West Stockbridge, 38 miles—total, 200. This road is under very efficient management. James Barnes, Esq., the superintendent, graduated at West Point, and is one of the most efficient line engineers in the United States.

## PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD.

We have received the annual report of this corporation. It, however, furnishes but little information of importance, omitting to give any tabular account of the number of passengers, or the receipts from various sources. The only items of any interest are stated in the brief report of the new president, Mr. E. C. Dale, who takes the place of Mr. M. B. Buckley, from which it appears that the total gross revenue of the year, 1846, has been $568,553.27; while the total expenses amount to $287,704.72. How long will it take the directors of this corporation to discover that a liberal policy and moderate fares are the surest means of increasing the travel and income of the road? We hope that the new president and board of directors will take counsel of the experience of the railroad corporations of Massachusetts and New York.

## MERCHANDISE ON THE COLUMBIA RAILROAD.

The following comparative statement of the receipts of the following articles at Philadelphia by this route, in 1844, '45, and '46, is derived from the "Commercial List:"—

| | 1846. | 1845. | 1844. |
|---|---|---|---|
| Flour,.....bbls. | 332,370 | 188,993 | 194,541 |
| Wheat,.....bush. | 40,130 | 23,217 | 30,680 |
| Corn, rye, and oats,..... | 356,197 | 237,417 | 255,138 |
| Bacon,.....lbs. | 2,379,150 | 7,044,300 | 5,806,991 |
| Butter, ..... | 1,163,400 | 1,218,350 } | 940,620 |
| Cheese,..... | 168,200 | 216,300 } | |
| Cotton,..... | 1,124,000 | 929,100 | 346,159 |
| Feathers,..... | 341,300 | 584,300 | 332,714 |
| Hemp,..... | 1,025,900 | 576,200 | 608,794 |
| Iron,.....lbs. | 1,242,200 | 1,572,550 | 7,969,747 |
| Leather,..... | 584,500 | 586,100 | 554,475 |
| Tobacco,..... | 3,245,300 | 3,305,700 | 3,483,487 |
| Wool, ..... | 2,985,300 | 3,317,400 | 2,552,874 |
| Whiskey,..... .....gallons | 500,011 | 527,925 | 548,565 |

## SUCCESS OF THE ENGLISH RAILROAD SYSTEM.

The Edinburgh Review contains an interesting article on this subject, from which we extract the following paragraph:—

"We have stated that the first of this series was the Liverpool and Manchester line—thirty miles in length—which was opened for traffic in 1830. In 1840 there were thirteen hundred miles of railway in full operation in England, upon which, during that year, twelve millions of persons had been conveyed. In 1841 fifteen hundred miles were worked, on which twenty millions of passengers had been conveyed. In 1843 the length of railway open was eighteen hundred miles, and the number of passengers transported nearly twenty-seven millions; and in 1844 the length was increased to nineteen hundred miles, and the passengers exceeded the incredible number of thirty millions. Nearly sixty millions sterling of capital [$300,000,000] had been expended, in little more than ten years, on these enterprises. But all the principal lines paid large profits. Dividends of 10 per cent were declared, and the shares rose to cent per cent premium."

# JOURNAL OF MINING AND MANUFACTURES.

## "THE COAL MINES AND COAL TRADE OF BELGIUM."

The second article in the present number of the "Merchants' Magazine and Commercial Review," with the above title, is from a work nearly ready for the press, and has been kindly furnished for publication in our Journal, by the author, Richard Cowing Taylor, Esq., Fellow of the Geological Society of London, Member of the American Philosophical Society, and of various other institutions. The work will be put to press as soon as a sufficient number of names are obtained to insure the publisher from actual loss. The work, which we have had the pleasure of examining in manuscript, covers the whole ground. It is, to quote the title, from the prospectus before us, "*The Geographical and Geological Distribution of Mineral Combustibles or Fossil Fuel, embracing, from Official Reports of the Coal Producing Countries, the Respective Amounts of their Production, Consumption, and Commercial Distribution, together with their Prices, Tariffs, Currency, Duties, and International Regulations.*"

In the three hundred tables of coal statistics which it contains, Mr. Taylor has brought down the returns to the latest practicable period. In the thousand tables of coal analysis, not a table is inserted without the sanction of the highest scientific authority. The author is perfectly familiar with every section of the coal region of Pennsylvania. He has, moreover, been several years employed in collecting materials for this work, which presents, in a concentrated form, the characteristic details of one of the most valuable departments of mineral statistics. "It need not here be urged," says the author, "that the data, essential to such a design, are now distributed throughout a multitude of documents, are printed in various languages, and emanate from numberless sources, more or less attainable." The work is not confined to one set of readers, but is calculated to benefit the commercial, the manufacturing, and the scientific, and with them, the producer, the operative, and the political economist. It will be comprised in a royal octavo volume, of about seven hundred and fifty pages, illustrated with maps, printed in the best manner, on fine paper, and handsomely done up in embossed cloth. The subscription price is fixed at $4. We understand that about one hundred and fifty persons have become subscribers to the work. Fifty or sixty more will barely cover the expense of printing, and secure its publication. We shall be glad to receive the names of all persons interested in the subject, and forward them to the worthy author in Philadelphia.

## COAL MINES AND TRADE OF PENNSYLVANIA.

We commenced in the "Merchants' Magazine" for February, 1847, the publication of an article on the coal trade of Pennsylvania, prepared by Col. C. G. Childs, the editor of the Philadelphia "Commercial List." The subject has been concluded in a subsequent number of that valuable journal; and with the permission of Mr. Childs, who has secured the copy-right for the article, we re-publish the remainder:—

In continuing our remarks on the Pennsylvania coal trade, we cannot forbear to quote the language of some eminent British writers in reference to the connection between the possession of coal mines and the prosperity of a nation.

The President of the British Statistical Society, Mr. Porter, speaks of the coal mines of England as "the source of greater riches than ever issued from the mines of Peru." He adds:—"But for our command of fuel, the inventions of Watt and Arkwright would have been of small account; our iron mines must have long since ceased to be worked, and nearly every important branch of manufactures which we now possess, must have been rendered impracticable, or at least have been conducted upon a comparatively insignificant scale."

The well-known Professor Buckland says:—"The amount of work done by steam in England, has been supposed to be equivalent to that of three or four hundred millions of men, by direct labor; and we are almost astonished at the influence of coal and iron and steam, upon the fate and fortunes of the human race. It is 1,800 feet below the earth's surface. It rows, it pumps, it excavates, it carries, it draws, it lifts, it hammers, it spins, it weaves, it prints. We need no further evidence to show that the presence of coal is, in an especial degree, the foundation of increasing population, riches and power, and of improvement in almost every art which administers to the necessities and comforts of mankind."

A writer in a well-known English periodical, pronounces coal "the chief source of the national wealth and power, and the foundation of our manufacturing industry. Without such a supply of fuel, our iron, lead, tin and copper ores must have remained in their beds."

Of coal, and its proximity to iron ore, Professor Bakewell remarks:—"The frequent occurrence of these minerals together, both destined in future to give to man an extensive empire over the elements, and to contribute largely to his means of civilization and comfort, cannot fail to impress the reflecting mind with evidence of prospective designing intelligence."

In a parliamentary document, Mr. Buddle, the eminent engineer, states, in a striking manner, his view of this subject:—"Should our coal mines ever be exhausted, the manufacturing interest would melt away at once. We should lose many of the advantages of our high civilization, and much of our cultivated ground must be shaded with forests, to afford fuel for the remnant of our present population."

Mr. McCulloch, author of the Commercial Dictionary, says:—"Our coal mines are the principal sources and foundation of our manufacturing and commercial prosperity. Since the invention of the steam-engine, coal has become of the highest importance as a moving power; and no nation, however favorably situated in other respects, not plentifully supplied with this material, need hope to rival those that are, in most branches of manufacturing industry. The citizens of Glasgow, Manchester, &c., are able, at a small expense comparatively, to put the most powerful and complicated machinery in motion, and to produce results quite beyond the reach of those who have not the same command over coal, or (as it has been happily defined) hoarded wealth. Our coal mines have been sometimes called the Black Indies; and it is certain that they have conferred a thousand times more real advantage on us, than we have derived from the conquest of the Mogul Empire, or than we should have reaped from the dominion of Mexico or Peru."

Reflections on the vast coal resources of Pennsylvania, and the great operations which will certainly result from the possession of this fuel, are animating, and in many respects of useful tendency. They expand the views, and lead us to feel a more elevated and intelligent interest in whatever concerns our commonwealth.

When we remember that Pennsylvania is the only State which possesses anthracite coal, (in any amount worthy of mention,) and when we notice the remarkable fact that she is the only State which has direct access by water at once to the ocean, the lakes and the Mississippi, we perceive that her position, as well as her internal resources, is such as to justify very high expectations in reference to her future wealth and influence. Estimates based on the United States census of 1840, and other statistical returns, place the total value of real estate in Pennsylvania, at $1,400,000,000, and the value of personal property at $700,000,000, making an aggregate capital of $2,100,000,000—more than three times that of New York! This result, striking as it is, becomes less astonishing, the more we contemplate the peculiar endowments of Pennsylvania.

The three anthracite coal fields of Pennsylvania, are each about 65 miles in length, and five miles in width; embracing an area of 325 square miles, or 208,000 acres each. The aggregate is 975 square miles, or 624,000 acres.

We estimate the supply of anthracite coal for 1847, at 2,800,000 tons. The value of this quantity at $4 per ton, which may be taken as the average price at tide-water, is $11,200,000. The importance of this trade to the city of Philadelphia, while it is great in other respects, is shown strongly in the fact that a large portion of the coal lands are owned here, and the revenue therefore reverts to our citizens. The constantly increasing use of this fuel in other parts of the country, tends to keep the balance of trade with other cities continually in our favor; and this tendency must increase with the increasing demand for our coal. The coal trade of Great Britain has made the port of Newcastle, which would otherwise be an unimportant place, second only to London in the amount of its shipping. A similar effect must our coal trade have upon the port of Philadelphia, making it the great shipping port of the Union.

It is interesting and amusing to look back to the first attempts made to use the anthracite coal, and to bring it to market. Our venerable friend, Hon. Charles Miner, of Wilkesbarre, in his published account of his first efforts, in connection with Mr. Cist and other

associates, relates some pleasant anecdotes. On the 9th of August, 1814, they started off their first ark from Mauch Chunk. "In less than eighty rods from the place of starting, the ark struck on a ledge, and broke a hole in her bow. The lads stripped themselves nearly naked, to stop the rush of water with their clothes." In six days, however, the ark reached Philadelphia, with its twenty-four tons of coal, which had by this time cost fourteen dollars a ton. But, says Mr. Miner, "we had the greater difficulty to overcome of inducing the public to use our coal, when brought to their doors. We published handbills, in English and German, stating the mode of burning the coal, either in grates, in smith's fires, or in stoves. Together we went to several houses in the city, and prevailed on the masters to allow us to kindle fires of anthracite in their grates, erected to burn Liverpool coal. We attended at blacksmith's shops, and persuaded some to alter the Too-iron, so that they might burn Lehigh coal; and we were sometimes obliged to bribe the journeymen to try the experiment fairly, so averse were they to learning the use of a new sort of fuel."

How like a fable all this seems at the present day! As we sit before our coal fires, and think of no other, how little do we realize that thirty years ago Mr. Miner and Mr. Cist were trying the experiment of an anthracite fire at Wilkesbarre, and wondering whether they could not float an ark-load of the coal to Philadelphia! Now we are reckoning the coal trade in millions of tons!

In the Schuylkill region the effort was made a little earlier. In 1812, Col. George Shoemaker loaded nine wagons with coal at the place now known as the Centreville Mines, and proceeded to Philadelphia. "Much time was spent by him in endeavoring to introduce it to notice, but all his efforts proved unavailing. Those who deigned to try it, declared Col. Shoemaker to be an impostor for attempting to impose stone on them for coal, and were clamorous against him. Not discouraged by the sneers cast upon him, he persisted in the undertaking, and at last succeeded in disposing of two loads, for the cost of transportation, and the remaining seven he gave to persons who promised to try to use it, and lost all the coal and charges."

These early persevering efforts cannot but be regarded now with grateful interest. To the enterprise of those men we are indebted for the knowledge of the great resources which now baffle computation. Let any one look around at our coal-wharves and coal-yards, and then look back a little more than thirty years, and in imagination see Mr. Shoemaker or Mr. Miner going about our city to find some one who would consent to try the despised stone-coal in his shop or his fire-place, and denounced as enthusiasts, or even impostors!

The following table shows the imports of foreign coal into the United States, from 1821 to 1846, inclusive:—

| | Foreign Coal. | | Foreign Coal. | | Foreign Coal. |
|---|---|---|---|---|---|
| 1821 | 22,122 | 1830 | 58,136 | 1838 | 129,083 |
| 1822 | 34,523 | 1831 | 36,509 | 1839 | 181,551 |
| 1823 | 30,433 | 1832 | 72,978 | 1840 | 162,867 |
| 1824 | 7,228 | 1833 | 92,432 | 1841 | 155,394 |
| 1825 | 25,645 | 1834 | 71,626 | 1842 | 141,526 |
| 1826 | 35,665 | 1835 | 49,969 | 1843 | 41,163 |
| 1827 | 40,257 | 1836 | 108,432 | 1844 | 87,073 |
| 1828 | 32,302 | 1837 | 153,450 | 1845 | 85,771 |
| 1829 | 45,393 | | | | |

Year ending June 30, 1846:—

| | Tons. | Value. |
|---|---|---|
| From England | 57,903 | $173,290 |
| " British American Colonies | 95,330 | 195,452 |
| " All other places | 3,620 | 9,855 |
| Total | 156,853 | $378,597 |

## FRENCH IRON AND COAL MINES.

Beds of iron ore are known to exist in France, extending from Luxembourg to the mountains of the Vosges, and within the year 1846, extensive works have been opened from the village of Moulins, along the valley of Mance, on the banks of the Moselle. The ore is rich, and fit for the manufacture of rails, and is giving employment to a large number of

the people. The furnaces used in this department produce upwards of twelve tons of metal per day. Twenty-one furnaces will, in a short time, be in blast, which in five years will furnish at least 315,000 tons of cast metal.

The report of the engineer, appointed by the administration of roads and bridges in France, states that the country is in the third rank as regards the production of coal; England and Belgium being the first and second. The production of England annually is 23,500,000; of Belgium, 4,500,000; of France, 3,783,000; and of the Zollverein 3,000,000 tons.

## HALL'S HYDROSTATIC INK FOUNTAIN.

This beautiful Ink Fountain, from the manufacture of Thomas Wildes & Co., New York, is superior to anything of the kind that has ever fallen under our notice. It is so constructed that the ink or fluid is retained in a metallic chamber, protected from the atmosphere, thus preventing the evaporation or even wasting of the ink, and rendering it always of a uniform consistency and color. The ink is let on or withdrawn at will, so that the last drop in the fountain can be used. If by accident it should be overturned, the fluid in the cup only will be lost, and even this can be prevented, by turning the screw, which forces the ink into, or withdraws it, from the cup within the fountain, and placed in any position with perfect safety, not a drop escaping. The cup is cleansed without discharging the ink from the fountain, thus presenting a pure fluid at all times for use. For neatness, utility, and simplicity of construction, it surpasses any ink-stand or fountain, that we have ever seen. It is admirably adapted for the counting-house of the merchant and man of business.

## EXTENT OF THE COTTON MANUFACTURES OF ENGLAND.

The editor of the Lowell Courier, who has been for some time past making the tour of Great Britain, writes, under date of Manchester, England, September 2d, 1846, as follows:—

"I am now in the very heart of the English manufactories. Since my arrival here, I have been into a number of the mills, and collected a great many facts in regard to factory life here. I am amazed at the extent to which manufactures have reached in this place, and the region round about. I was in a mill, in Stockport, a place about six miles from this city, in which I saw thirteen hundred looms at work on one floor, and I am expecting to go into a mill, to-morrow, in which there are eighty thousand spindles. The wages paid to the operative are not so low here as in Scotland. Indeed, there is a good deal of poetry in the assertion that the Manchester mills are worked by paupers. The wages in cotton mills here, will average, probably, about one-third lower than in Lowell—not more, if so much.

"The amount of capital invested in the production of cotton goods and prints, in Lowell, is, I believe, less than ten millions of dollars. In the whole of Middlesex county, the amount of capital invested in cotton manufactures, is not, probably, more than thirteen millions of dollars. Middlesex county is, I believe, the most deeply interested in the manufacture of cotton, of any county in the United States. Now, I learn by a printed statement, lying before me, that in this one county of Lancashire, of which Manchester is the centre, there are rising eighty millions of pounds sterling engaged in cotton manufactures, being nearly *four hundred millions of dollars*—giving employment to about a million and a half of persons—nearly twice the amount of the whole population of Massachusetts; and this is only one county."

# THE BOOK TRADE.

1.—*The Lives of Lord Chancellors and Keepers of the Great Seal of England, from the Earliest Times till the Reign of King George IV.* By JOHN LORD CAMPBELL, A. M., F. R. S. E. First Series, to the Revolution of 1688. In three volumes, 8vo., pp. 495, 496, and 499. From the Second London Edition. Philadelphia: Lea & Blanchard.

There can be no doubt of the truth of the remark of the learned author of these volumes, that no office in the history of any nation has been filled with such a long succession of distinguished and interesting men as the Lord Chancellor, or Lord Keeper of the Great Seal of England. It has existed from the foundation of the British monarchy; and, although mediocrity has sometimes been the recommendation for it, generally speaking, the most eminent men of the age, if not the most pure and virtuous, have been selected to adorn it. The history of the holders of the Great Seal is the history of the British Constitution, as well as of her jurisprudence. There is a sort of romance belonging to many of those whose lives are here delineated; and the strange vicissitudes of their career are not exceeded by the fictions of novelists or dramatists. Indeed, we are informed that within a few weeks after the publication of the first edition in England, "it was on every table—almost on every toilette." "Though founded on historical records, and having solid instruction for its object, it has been as generally read as popular works of fiction, aiming at nothing beyond amusement." Introductory to the "lives," the author gives a very interesting account of the origin, functions, and jurisdiction of the office of Lord Chancellor in England; and commences with Augmendus, who, it appears from Selden, was Chancellor to Ethelbert, the first Christian king among the Saxons, A. D. 605. The memoirs in the first series extend from that period, through a long line of illustrious "Keepers of the Great Seal," to the reign of King James II., and Lord Chancellor Jeffreys, in 1688. The American edition of the work is from the second London, which has been corrected by the author, and enriched with several interesting documents, among which we notice Richard the Third's letter to Lord Chancellor John Russell, respecting the marriage of the Solicitor-General with Jane Shore. It appears from the author's preface, that a third and fourth volume, which will bring down the Chancellors to the death of Lord Thurlow, will soon be published; and that a supplemental volume, including Lord Loughborough, Lord Erskine, and Lord Eldon, will complete the series. The whole work covers a period of more than one thousand years; and, in addition to a narrative of the lives of the Lord Chancellors, it presents a glimpse of the most important historical events, and of the manners of the age. Cherishing the great principles of civil and religious liberty, Lord Campbell, it would seem, fairly appreciated the acts and characters of those whose lives he has recorded, without being swayed by the consideration whether they were Roman Catholics or Protestants—Whigs or Tories. The work is highly instructive, and withal a most valuable contribution to the literature of the Law; and will, we apprehend, be read with interest, not only by statesmen and lawyers, but men of education generally.

2.—*American History: comprising Historical Sketches of the Indian Tribes; a Description of American Antiquities, with an Inquiry into their Origin, and the Origin of the Indian Tribes of the United States, with Appendices, showing its Connection with European History; History of the Present British Provinces; History of Mexico, and History of Texas, brought down to the Time of its Admission into the American Union.* By MARCIUS WILSON, author of "School History of the United States," "Comprehensive Chart of American History," etc. 8vo., pp. 672. New York: Mark H. Newman & Co.

The design of the present volume is to present the histories of all those countries of North America that are of sufficient political importance to demand the attention of the scholar, and awaken the interest of the general reader. As an appropriate introduction to such a work, Mr. Wilson has given the most important portions of the history of the aborigines of America, together with descriptive sketches of those rude memorials of a former civilization that were once so numerous throughout our own territory, and others, magnificent even in their desolation, which now strew the plains, and crown the hill-tops of Mexico, Yucatan, and Central America. Passing from the Indians and the antiquities, we have *fac similes* of the public seals, or coats of arms of the several States of the American Union. Next follows the history of the United States, commencing with the discovery of America by Columbus, in 1492, and bringing it down to April, 1845. A minute marginal analysis has been carried throughout the entire work, each subject being opposite that portion of the text to which it refers, thus admirably adapting it to the purposes of instruction. The work contains a good number of geographical and historical notes, and maps at the bottom of the pages, which give the localities of all important places mentioned, and furnish just that kind of geographical information respecting them, without which the history can be read with little interest or profit. The work seems to possess rare merits as a history—it is methodical and comprehensive; and we can scarcely discover how, in these and other respects, the plan or the execution of it could well be improved.

3.—*Six Lectures on the Uses of the Lungs, and Cause, Prevention, and Cure of Pulmonary Consumption, Asthma, and Diseases of the Heart; on the Laws of Longevity and on the Mode of Preserving Male and Female Health to an Hundred Years. With Twenty Eight Illustrations.* By SAMUEL SHELDEN FITCH, A. M., M. D. New York: H. Carliste, 707 Broadway.

The great number of persons that fall a prey to pulmonary complaints, in this country, and the almost universal feeling among the medical profession, that consumption is incurable, necessarily renders any announcement to the contrary, coming from whatever quarter, deeply interesting. So firmly fixed is utter despondency in the mind, on this subject, that we are ready to denounce the author of such a hope, a quack and a humbug. With Dr. Fitch, however, we are personally acquainted; and although we cannot say, from individual knowledge, that he has discovered the "preventative and curative" of the disease, we feel quite sure that he is very far from being a quack. For nearly a quarter of a century, with some interruptions, diseases of the chest have been his study. In 1827, he informs us in his preface, whilst a student of medicine in Philadelphia, he discovered the grand uses of the lungs, and thereby laid the foundation of a scientific, rational, and certain method, of elucidating and treating their diseases. To notice the effects of climate, as a curative or preventative agent, he visited nearly every State in the Union; also, England, Scotland, Ireland, Holland, Belgium, France, Italy, the Northern shores of the Mediterranean, Switzerland, Sardinia, and Saxony, besides several watering places of Germany, Prussia, the West India Islands, the Canadas, etc., seeking everywhere for knowledge and light on the diseases of the lungs, making himself everywhere as fully acquainted as possible with the peculiarities of each locality, both in the nature and prevalence of consumption, as well as the peculiar methods adopted for its prevention and cure, by the first professors and teachers of Europe, and this country, as well as the untutored savage of America, who are well known to treat many diseases, and especially those of the lungs, with great success. The volume before us, contains six lectures. In the first two, he treats of the uses of the lungs, causes, and the prevention and cure of consumption. The third is devoted to proofs of the cure of consumption; and in the fourth and fifth lectures, addressed to ladies, he discourses of the mode of forming a fine chest, erect carriage and walk—the symmetry of the internal organs of the body and mind, as preventing pulmonary consumption, and insuring long life. There is no mysticism, or mystery, thrown around his theory, but all is clear, intelligible and philosophical; and there is, withal, a large measure of common sense, that cannot fail of attracting the notice of the sincere searcher after truth. In his treatment, Dr. Fitch uses very little medicine, repudiating mercury, opium, and emetics, etc., depending more upon mechanical means, such as the expansion of the chest, and on diet, air, and exercise. We have read his lectures with deep interest, and we earnestly commend them to the attention of the invalid, as well as those who desire to prolong life, and render it comfortable and happy.

4.—*A Treatise on the Practice of the Supreme Court of the State of New York.* By DAVID GRAHAM, Counsellor at Law. Third Edition. Revised, corrected, and enlarged. In two volumes. Vol. I., pp. 785. New York: Banks, Gould & Co., Law Booksellers, 144 Nassau-street.

The first edition of this work was published, we believe, in 1832, and the second in 1836. The latter became so far exhausted in 1839–40, as to induce the author to set about the task of preparing the present. In the preparation of this edition, says Mr. Graham, it will be observed that the work has been much enlarged. When the second volume is completed, the whole will embrace an amount of matter greatly exceeding that contained in the last edition. During the period embraced in the interval between the publication of that and the present, there have been published more than twenty volumes of the reports of the Supreme Court, besides ten volumes of Statutes, embracing a greater amount of *practical* law than is included in double that period during any portion of the former history of the practice in New York. These, with the late English cases which bear upon the practice as it exists in New York, though introduced in the present work in a condensed form, have contributed greatly to increase the size of the volume. The changes in the practice, introduced by the new constitution, form an important feature in the present edition. To the profession in the State of New York, it would be a work of supererogation, on our part, to commend "Graham's Practice." The learning and ability of the author are undoubted; and the improvements, additions, &c., renders this edition a desideratum, which few in the practice of the law can very easily be induced to dispense with. In point of neatness and accuracy, the law books emanating from the publishers of the present work are not surpassed. They have confined themselves to the printing and publishing Law, almost exclusively, for the last twenty years.

5.—*The Contributions of Q. Q. to a Periodical Work: with some Pieces not before Published.* By the late JANE TAYLOR. 2 vols., 18mo., pp. 295 and 268. New York: Robert Carter.

The miscellanies collected together in these volumes, with a few exceptions, originally appeared in the Youth's Magazine, published in London. They are doubtless familiar to most of our readers. The pieces in the first volume are religious and didactic, and in the second of a miscellaneous character, but all instructive; and they have ever been considered among the happiest efforts of the author's pen. They form two volumes of "Carter's Cabinet Library," a series of works quite popular with that large class of Christians denominated "evangelical" or "orthodox."

THE

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BY FREEMAN HUNT, EDITOR AND PROPRIETOR.

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# HUNT'S

# MERCHANTS' MAGAZINE.

APRIL, 1847.

## Art. I.—COMMERCE OF CEYLON.

The island of Ceylon, which is situated at the west entrance of the bay of Bengal, extending about 270 miles from North to South, and occupying an average breadth of 100, is acknowledged to be one of the most beautiful upon the surface of the globe. Abounding in various scenery, it spreads out a tropical vegetation of the utmost luxuriance, producing some of the most valuable staples of commerce; while the resources of its soil contain, not only gold and silver and precious gems, but various other species of mineral wealth. Chains of mountains, varying from 1,000 to 4,000 feet above the level of the ocean, occupy the central portion of the island, embosoming the most lovely valleys; while a broad belt of alluvial land of great fertility surrounds them, furnishing ample scope for the enterprises of husbandry. Forests of gigantic size cover the mountains even to their summits, adorned here and there with elegant cascades, which form the placid streams and sparkling rivulets that water the valleys. It is our design to portray, in a condensed form, the general condition of this island, so far as it bears upon the interests of trade and commerce.

There appears to be satisfactory evidence, that Ceylon was formerly a densely populated country, in the monuments which are scattered over its land. There is now apparent, in a part of the island, the ruins of a large city constructed of brick and mortar; and also an artificial tank, or reservoir of water, whose basin is 16 miles in extent. At the distance of 9 miles from this reservoir, is an embankment, formed of large stones 8 feet long, 4 feet broad, and 3 feet thick, cemented together by lime; the length of the dam being 600 feet, the breadth 60 feet, and the height about 12 feet. It is said that this work was executed by the Hindoos. Numerous buildings, apparently of a more remote date, are, moreover, discovered in the interior, the stone work of which is finished with great skill. A lake, 15 miles in circumference, has been also formed, by the artificial junction

of two hills. For the parapets, by which this work is finished, arches, similar to those used by the Romans, are perceptible; and a gigantic pagoda, the base of whose cone is a quarter of a mile in circumference, surrounded by an enclosure also of one mile in circumference, composed of a wall of brick and mortar, and an entering colonnade of stone pillars 10 feet high, attracts the attention of the explorer. The ruins of ancient canals and bridges have also been discovered; the latter giving evidence that the ancient Cingalese had a knowledge of the use of the wedge and chisel, long before they were introduced into Europe for similar purposes.

The wooded portion of the island abounds in game of various sorts, among which, are the moose-deer, the jungle-fowl, the monkey, and the elephant. The roads along the coast, run through extensive groves of cocoa-nut trees. The main avenue from Colombo to Kandy, possesses a tunnel, 500 feet long, cut through the mountain, while the rivers are crossed by elegant iron or wooden bridges.

Nor is the population of the island less remarkable than its natural features. This is, for the most part, comprised of the Cingalese or Ceylonese, the Malabars or Hindoos, the Moors or descendants of the Arabs, or the Mahomedans of Upper India, and the Veddas, who are the aborigines of the island, mingled with Malays, Caffres, Javanese, Chinese, and Parsee traders, together with the descendants of the Portuguese and Dutch, and the English, who now possess the jurisdiction of the territory. It is supposed that the population has declined from its former amount. According to the census of 1836, the total amount of the population was 645,492 males, and 584,336 females. The Cingalese occupy themselves with many branches of manufacture, among which, are the weaving of cotton and silk; the working in gold and silver, iron and copper; the glazing of pottery; the casting of cannon, and the distillation of spirits; the application of lacker, and the preparation of gunpowder; besides the cutting and setting of precious stones. The peasantry possess land, from which they derive a part of their subsistence.

But we approach a subject, more directly bearing upon the commerce of Ceylon, namely—its staple products. We are informed that, for a distance of 135 miles, there is a continuous grove of cocoa-nut, bread-fruit, and jack-fruit trees. Cotton grows abundantly; and every village or hut, possesses its patch of sugar-cane and tobacco. Coffee, of the best kind, abounds; and the pepper-vine flourishes, nearly in a state of wildness, all over the island. Cardamon plants are likewise plentiful, and the areca-nut, of the best quality, is produced. Teak forests are frequent; and calamander, ebony, satin, rose, sappan, iron, jack, and every kind of wood, adapted to the most elegant kind of cabinet-making work, are, moreover, abundant.

But the most distinguished vegetable product of the island, is the cinnamon; and here, the greater part of that which forms the staple of commercial export is produced. Indeed, we are told, that the approach to the coast is known by the odor borne upon the breeze from its cinnamon groves. The tree, from which this bark is derived, grows to the height of from 15 to 20 feet; the roots possess the pungent smell of camphor and the odor of cinnamon, while the leaves have the taste of cloves. The cinnamon plantations of the island occupy between 2,000 and 3,000 acres, and more than 30,000 persons are employed upon them. On the 1st of May, the peeling of the bark commences, and ends with October. The

peelers constitute a distinct class in Ceylon. The plantation itself requires a growth of seven or eight years before it yields produce. The importance of this article as a commercial staple will hardly be questioned, since we find it constituting a part of the stock of almost every grocer's store-house. We, therefore, subjoin a table, showing the quantities of cinnamon which were imported into England for a period of eight years, ending with the year 1834. Since that period it has been much increased:—

| 1827. | 1828. | 1829. | 1830. | 1831. | 1832. | 1833. | 1834. |
|---|---|---|---|---|---|---|---|
| Pounds. | Pounds. | Pounds. | Pounds. | Pounds. | Pounds. | Pounds. | Pounds. |
| 967,444 | 337,483 | 544,225 | 464,175 | 225,869 | 36,762 | 102,402 | 221,222 |

By a statement before us, it appears that the sale of cinnamon was, in—

| 1833. | 1834. | 1835. | 1836. |
|---|---|---|---|
| £59,758 | £9,679 | £13,029 | £52,534 |

Recent advices by the overland mail, received *via* London, put us in possession of some interesting accounts from Ceylon, furnishing statistics relative to the trade of the island for the year ending the 5th of January, 1846. According to these, it appears that the number of vessels entered inwards was 3,281, with 196,364 tonnage; while the number cleared outwards was 3,207, with 189,815 tonnage. The gross amount of customs duties received on imports and exports during this period was £144,460, and the gross revenue from customs, including port dues, warehouse-room, &c., £148,519. The total value of imports was £1,494,824, and the total value of exports, £583,100. The quantity of coffee shipped to England, was 168,890 cwt. 2 qrs. 22 lb.; and of sugar, 5,145 cwt. 2 lb. A comparison of the value of exports to Europe, during the quarter ending the 10th of October, 1845, and 1846, shows the following results:—

| | 1845. | 1846. | | 1845. | 1846. |
|---|---|---|---|---|---|
| Coffee,..... | £24,786 | £36,451 | Cocoa oil,..... | £2,332 | £4 |
| Cinnamon,..... | 15,993 | 6,949 | Sundries,..... | 2,341 | 1,924 |
| Plumbago,..... | 321 | 614 | | | |

These advices also state, that the southwest monsoon was breaking up, and that the wet weather had increased. A discovery of tin ore had been made by the missionaries, in the north part of Saffragan district, who manifest an inclination to extend their researches, if the government is prepared to grant them privileges and remit the demand of royalty. The markets at Colombo were not brisk. Very small parcels of coffee, of the new plantation crop, had reached the hands of the merchants; not only the general backwardness of the season, but also the scarcity of labor tending to retard the progress of the gathering. Some of the samples from the elevated districts are pronounced as decidedly good. Native descriptions were quoted 24*s*. 6*d*. to 25*s*. In cinnamon no great change had occurred. Some speculative business, it was thought, might follow the agitation respecting a reduction of the duty. The "cuttings" are stated to have fallen short of the estimates. The raw material for the manufacture of cocoa-nut oil continued exceedingly scarce, and was quoted at 30 rix-dollars to 33 rix-dollars per candy. Cinnamon oil was in demand at 5. Freights had given way to £4 5*s*. to £4 10*s*. for oil and coffee, and to £5 5*s*. to £5 10*s*. for cinnamon. The exchanges scarcely

maintained previous firmness; and after the arrival of the Seaforth, it was anticipated that the bank rates would be 5 per cent discount for six months' paper. The dulness in the import market was attributed to the late crops.

There are likewise upon the island, manufacturing establishments, where handkerchiefs, table-cloths, napkins, towels, sail-cloths, white coarse cloths, and cloths that are used for dress by the natives, are made; besides other products, which are valuable staples of domestic trade.

But it is for its mineral wealth that Ceylon is peculiarly distinguished. Besides an abundance of alum and salt, it possesses the more precious gems in a considerable quantity. Its mountain streams abound in silver and gold, and the amethyst and the sapphire, the topaz, the ruby, and the diamond, imbedded in its soil, furnish an important source of profit from its mines, while its coasts abound in rich pearls. By a census returned in 1836, we learn that there were then 198 gem quarries, producing yearly a large amount of value. The "pearl banks," as they are denominated, lie from 6 to 10 miles off from the shore, and are formed by coral ridges. Yet the pearl oyster arrives at the greatest value upon the banks of Arippo, where the coral rises nearly to the surface of the water, affording a shelter against the winds and currents. The oysters from which the pearls are collected, accumulate in heaps upon the rocks, and sometimes even 60 pearls are taken from a single oyster. The following is the ordinary mode of proceeding on the part of the pearl divers. The crew of each boat—which is generally of very rude construction, from 8 to 15 tons burden, and without decks—consists of a master, 10 divers, and 13 other men, who manage the boat and attend the divers while they are fishing. The diver, divested of his clothes, and standing upon a diving stone, weighing from 15 to 25 pounds, drawing a full breath, pressing his nostril between his thumb and finger, and holding a net, sinks to the bottom. On reaching the bottom he abandons the stone, and clinging to the ground commences filling his net. In order to accomplish this, he will sometimes creep over a space of 8 or 10 fathoms, and remain under water a minute. From 1,000 to 4,000 oysters, are generally collected by a pearl diver in a single day. The period in which the divers remain under water, is almost incredible to one who has not witnessed their proceedings, sometimes amounting to 80 seconds. One-fourth part of the oysters thus collected, belong to the divers, while the rest are reserved for public sale. It is stated, from what appears to be a most credible source, that the annual nett revenue which is derived from the pearl fishery, is £14,000 sterling; although, in 1833, when 1,250 divers were employed, it amounted to £25,043, and in 1835, to £25,816.

The shipping of the island, as well as its imports and exports, likewise constitute an interesting subject of investigation. Those imports and exports were extended to Great Britain, North America, the United States, and foreign states. The total number of vessels employed during the year 1834, in this commerce, was 1,406; during the year 1835, they amounted to 1,404; and during the year 1836, they amounted to 1,331, with a tonnage of 71,232; the value of this commerce in pounds sterling being £411,670, and employing 13,503 men.

The greater portion of the land is jungle, or waste land, which is at the disposal of the government; although that part which has been cultivated, comprises but comparatively a small portion. Besides live stock, consist-

ing of horses, horned cattle, sheep, and goats, the tilled soil has been made to yield abundant crops of paddy, fine grains, coffee, pepper, mustard, grain, maize, peas, cotton, and tobacco. During the year 1836, there were produced 715,286 pounds of cinnamon from its plantations, 190,161 pounds of coffee, 328,493 pounds of cotton, 6,202,278 pounds of tobacco, 12,243 bushels of pepper, 409,012 gallons of cocoa-nut oil, and 237,602 gallons of arrack. There seems to be no doubt that, by the grant of lands upon advantageous terms, and a judicious system of tillage, those several products may be much augmented in amount.

During the year 1815, Ceylon came under the jurisdiction of Great Britain, and since that period it has formed an important link in the chain of its colonial possessions. Regular communication now exists, through the agency of steam-ships and sail-vessels, between its ports and the city of London. Its principal city, Colombo, possesses a population of about 50,000. Trincomalee is likewise an important point, deriving its prominence from the excellence of its harbor, in which the English have a dock-yard. The political administration of the island is confined to a governor and council, the latter being composed of some of the most experienced and approved European civil servants. The governor is commander-in-chief of the military forces when convoked by him, and may pass laws even without the consent of the council. Those are published some time before they are enacted, in the "Official Gazette," in order that they may elicit discussion, and are subject to the final approval of the queen in council. The operations of the government are prosecuted by three classes of persons. The first embraces those civil servants who are sent out as "writers" from England, under the auspices of the secretary of state, for the colony. The second class embraces those Europeans, not of the civil service, from which provincial magistrates and clerks in public offices are appointed; and the third class comprises natives, who sometimes hold the situation of lieutenants of districts, and interpreters to the courts of justice and to the collectors' offices. There is, moreover, a fourth class, which is comprised of officers selected from the regiments serving in Ceylon, who are appointed to the office of magistrates in the respective provinces. The appointments to the higher offices are made provisionally by the governor, subject, however, to the confirmation of the secretary of state in England.

The judicial administration of the island consists of a supreme court, which is presided over by three judges; and the trial by jury is established, both for the benefit of Europeans and natives. Within each district, there is also a district court. The supreme court is held at the city of Colombo, and appeals are allowed from that court to the queen in council. From the exposed condition of the island, it has been thought necessary to maintain a regular armed force for its defence. These consist of four king's regiments of infantry, which are stationed at Colombo, Kandy, and Trincomalee; two companies of royal foot artillery; a mounted body-guard for the governor; and a Ceylon regiment, nearly 1,500 strong, composed of Malays, wearing a dress of dark green, and armed with rifles and short strong swords.

Although the religion of the Cingalese is Budhism, yet the advances of the Europeans upon their island have introduced, in a great measure, the blessings of Christianity. There are various Protestant churches through its several populated portions, besides several chapels connected with the

Roman Catholic church. Missionary influences have, moreover, been extended to the island, and numerous schools have been organized; the total number of all kinds, in 1836, being 1,039. It can scarcely be denied, from the brief view that we have taken of this interesting island, that it exhibits, in its actual position, some of the most interesting circumstances. Since its acquisition by the government of Great Britain, no profit has been derived from its possession, inasmuch as its expenditures have exceeded the revenues. But by introducing the light of European knowledge into that region, there is reason to believe that advantages, greater than those which flow from commercial profits, will be disseminated through the territory; and that the native population, by contrasting the blessings of Christian civilization with the errors of their dark and mystic faith, will eventually be led to reject it, and to adopt principles more conformable to reason and enlightened justice. It is thus, that the area of a most valuable commerce can be most successfully extended.

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## Art. II.—A CHAPTER ON COLONIAL CURRENCY,

### PRIOR TO THE YEAR 1739.

THE fluctuation and uncertainty which distinguish the subject of currency at the present day, above all other questions of national interest, were not unknown during the earliest periods of our colonial existence. The subject of a circulating medium, adapted to the requirements of commerce and the relative position of the several colonies, was warmly contested; and gave rise to various projects of a financial character. The perpetual drain upon the precious metals, to meet the demands of creditors in Great Britain, by enhancing the scarcity already existing in a newly-settled country, compelled a resort to other mediums, for the purpose of carrying on their domestic traffic. While some provinces adopted a truck trade, based on the products of the soil, others found it more expedient to have recourse to a paper currency. Both schemes were temporarily beneficial, within the limits of the several colonies that adopted them. They could not, however, subserve the purposes of a *national* currency, so long as there existed an independence in matters of government, or a division of pecuniary interests. As a natural consequence, the value of money became so uncertain, that operations in trade were liable to perpetual obstruction—a condition of things which led to dealing in loans and exchanges to a ruinous extent. This was particularly the case in Rhode Island, whose legislature had no representative of the king, nor admitted of instructions from his council, or the Board of Trade and Plantations.

These loans were usually made by government to private individuals, on landed security, conditioned that repayment should be made in their depreciated value, at the expiration of twenty years. The persons who took them were called *sharers;* and were required to pay into the treasury 5 per cent annual interest, for the first ten years, and 10 per cent of the principal, without interest, for the remaining ten. The sharers loaned the money in their own and neighboring colonies at 10 per cent. or more, for the whole twenty years, which enabled them to realize £150 nett on every £100 loaned, principal and simple interest, after paying the same amount into the public treasury. In some instances, the sharers would sell

immediately for ready money premium, and, not unfrequently, as high as 35 per cent.

In addition to this system of fraud, which was practised by the colonists themselves, the connivance of government at home opened a door for arbitrary proceedings on the part of the colonial authorities, who sometimes assumed the responsibility of depreciating the standard denominations of gold and silver, with a view to personal profit. An instance of this kind occurred in Virginia, about 1680, when Lord Culpepper, in quality of king's representative, altered the value of silver coin by proclamation, to defraud a regiment, sent from England to quell the insurrection under Bacon.

Originally, in all the British American Colonies, 5s. denomination was equal to an English crown sterling. But, as pieces of eight became, by degrees, the standard currency, a fraud of no less than 11 per cent was practised upon the merchants at home. by remitting or crediting a piece of eight, of the value of 4s. 6d., for a crown, or 5s. sterling. This led to the passage of sundry laws, prohibiting the circulation of light pieces of eight; but, as these laws were seldom enforced, heavy and light pieces circulated promiscuously. The consequence was, the former were shipped to Great Britain, while the depreciated coin became the universal currency. In process of time, also, a distinction was made between heavy pieces, which became merchandise, and light pieces, in which debts were paid, varying from 10, 15, 20, to 25 per cent. This led to much complaint among the merchants and others who dealt with the colonies; and resulted in a proclamation of Queen Anne, and subsequently a proclamation act by parliament, that, from and after 1709, a heavy piece of eight and others, in proportion to their weight, should not pass current at an amount exceeding 6s. Except in Barbadoes and the Bermudas, little attention was paid to the provisions of this act; the currency of Virginia being regarded as equally if not more beneficial to the interests of trade and commerce.

The inconveniences resulting from this condition of the currency, were productive of different results in the several colonies, but more seriously felt, perhaps, in that of Massachusetts Bay than in any other. At the first settlement of the New England Colonies, their circulating medium was barter and sterling coin at sterling value; although a portion of the taxes were authorized to be paid in provisions and other produce, which were known as *stock in the treasury*. In matters of trade, a heavy piece of eight passed current at 5s., but, as early as 1652, they proceeded to coin silver shillings, sixpences and threepences, at the rate of 6s. to a heavy piece of eight; which was continued, by subsequent acts of Assembly, until 1705, when a resolve of the General Court altered the value to 7s. per oz. During the next year, the courts of judicature chancered silver to 8s. per oz. in satisfaction of debts, which was nearly at the rate of 6s. to a light piece of eight, as current at that time. At this rate, silver and province bills continued at par until 1714, when the large emissions of paper upon loans, which had been made at different periods, together with emissions to defray the expenses of government, depreciated the value of public bills to 29s. per oz. silver.

Massachusetts Bay. In this province, which has the credit of being the pioneer of paper currency among the British American Colonies, £40,000 "Old Charter Bills" were emitted as early as 1690 or 1691, to cancel the debt incurred by the Canadian expedition. These bills were successively redeemed and re-emitted, until 1702, when a new emission

took place, which, in connection with subsequent ones, was gradually cancelled by taxes in 33 years. During this period, the entire amount emitted and re-emitted was £1,132,500 upon funds of taxes, and £310,000 upon loans—making a total of £1,442,500.

New Hampshire. The requirements of trade in New Hampshire, at this early period, were so extremely small, that their bills of credit rarely circulated beyond the limits of that province. About the year 1739, the amount outstanding was something like £12,000, to be cancelled by 1742. The ordinary expenses of government did not exceed £1,500 per annum, New England currency.

Rhode Island. The first emission of this province was in 1710, towards defraying its proportion of charges on the expedition against Port Royal or Annapolis Royal, in Nova Scotia. Prior to 1739, the entire amount issued was £399,300, of which £19,300 were upon funds of taxes for expenses of government, and £360,000 upon loans.

Under the system of fraud adopted in this province, which we have already explained, the earliest loan appears to have been made in 1715, for a period of ten years; although payment was subsequently postponed, so as to bring the last instalment due in 1738. Exchange having risen, during this period, from £65 to £400 per cent, the sharer was enabled to realize £67 to the £100, minus the amount paid into the treasury.

Connecticut. The people of this province, being devoted chiefly to agricultural pursuits, had less occasion than their neighbors to venture upon schemes of finance; and silver would have been continued at its par value, or 8s. per oz., if currency had not been given to the bills of other provinces. Their first emission, intended for government charges only, took place in 1709; but was promptly cancelled by taxes, within the periods limited by the act. The entire emission of Connecticut, as late as 1739, was £155,000. In 1733, a charter was granted for trade and commerce to a society in New London, who undertook to emit bills of credit. These bills having failed in obtaining a general currency, the government were compelled, in justice to the holders, to issue £50,000 upon loan, to redeem them.

New York. In 1706, the province of New York resolved to chancer proclamation money, for reasons similar to those which had prompted the authorities of Massachusetts Bay, viz: the payment of debts. Three years subsequent to this date, £13,000 of public bills were issued, towards their quota of expenses incurred by the Canadian expedition. These originally bore interest; but in 1710 it was rescinded, under pretence that they were hoarded, and did not subserve the purposes of a currency; £10,000 additional were therefore issued, without interest.

By collusion of the Governor, Council, and Representatives, the sum of £2,680 was issued in 1714, to meet government expenditures, and to be cancelled in twenty years (1734) by excise on liquors. In 1717, an emission of £16,607 was made, to be cancelled by duty on wines and rum for 17 years, and excise continued from 1734 to 1739. This emission was connived at by the Boards of Council, Trade, and Plantations at home; and, having been made without the royal approbation, established a precedent which proved extremely detrimental to the interests of trade and commerce. In 1734, £12,000 were issued for fortifications, to be liquidated by imposts, prior to 1746; £48,300 additional were emitted in 1738, of which £40,000 were upon loan. This was to be cancelled by 1750. Ex-

change rose, in consequence, to 70 per cent, and silver to 9s. 3d. per oz. It having been ascertained, in 1739, that £15,000 of the emissions of 1714 and 1717 were yet in circulation, in consequence of an improper application of some portion of the public funds, it was deemed expedient to extend the excise 15 years longer, in order to cancel them.

New Jersey. As in Connecticut and New York, £3,000 were issued in 1709, towards the expedition to Canada. In 1711, under pretence of another Canada expedition, £5,000 more were emitted, to be gradually cancelled before 1713; although a considerable amount of both emissions were current as late as 1723. £40,000 were issued in 1724—a portion of which was applied to cancel outstanding bills, and the balance, upon loan, was to be redeemed in twelve years. This emission, though unusually large for so small a colony as New Jersey, was promptly cancelled, and eventually became 2s. better in the pound than the bills of New York. An additional issue of £20,000, however, in 1733, to be paid in sixteen years, had a tendency to depreciate the currency of this province to par with that of New York. In 1734, the first loan of 1724 being nearly cancelled, a farther loan of £40,000 was enacted by the Assembly, but not issued until 1736, in consequence of delay in obtaining the royal assent.

From this date, New Jersey bills gradually sunk below par with New York, until the emission of the latter province in 1738, when its bills became 6d. in the pound better than those of New York, and 1s. in the pound better than those of Pennsylvania. The stability of New Jersey bills, at this period, was attributable mainly to two causes:—

1st. Their currency in New York and Pennsylvania; while those of New York were not current in Pennsylvania, nor those of Pennsylvania in New York.

2nd. A provision of the act, by which failure of loan payments amount to a confession of judgment, and only thirty days' redemption of mortgages allowed.

Pennsylvania. In the two governments of Pennsylvania, currency continued at silver proclamation value, until 1723, when the three northern counties, or Pennsylvania proper, issued £15,000 upon loan, and £30,000 more, in 1724; but finding, in 1726, that £6,100 of these emissions were sunk, the friends of paper currency procured an act for re-emitting so much of the remainder as should be annually paid in by the borrowers; and accordingly, in 1729, £30,000 were issued, which, by various re-emissions, were kept in circulation for a great length of time. Ten years after, (1739,) an additional issue of £11,100 was made, on similar terms. At this date, exchange with London had advanced from 33, as high as 75 per cent.

Maryland. The truck trade in tobacco, adopted by this colony, contributed to keep silver at proclamation value, until 1734. An emission of £90,000 at this time, however, payable in three periods of 15 years each, advanced exchange from 33 to 150 per cent.

Virginia. With the exception of the arbitrary proceeding of Lord Culpepper, in 1680, Virginia was enabled, by adopting the truck trade in tobacco, to preserve her integrity much better than most of the other colonies. In 1739, silver had varied from 6s. a crown British, or 6s. 3d. per oz. silver, to 6s. 8d. and 5s. per oz. gold; which was equal to a depreciation of 25 per cent below sterling.

North Carolina. Prior to 1739, this province had issued £40,000

upon loan, and £12,500 upon funds of taxes. At that date, exchange was settled by legislative act, at 10 North Carolina for 1 sterling; but 12 to 14 to 1 sterling, in drawing upon London.

South Carolina. The expedition against St. Augustine gave occasion to the earliest emission of this colony, in 1702. Subsequent issues were made, in 1711 and 1715, for expeditions against the North Carolina and the Southern Indians; besides emissions for ordinary charges of government, and large sums upon loan. The amount outstanding, in 1739, was about £250,000, of which £100,000 was without fund or period. A truck trade in rice was adopted by this province. Exchange, as settled at that date, was 8 South Carolina for 1 sterling.

Georgia. The currency of Georgia, at this period, consisted of Trustees' Sola Bills sterling. The funds were allowances by Parliament and private subscriptions to carry on the settlement.

Barbadoes. Currency at proclamation value, 6s. 10d. farthing per oz. silver by weight, until the first emission of paper money; when £16,000 were authorized upon the Negro Tax Fund, (3s. 9d.,) and shortly after, £80,000 more upon loan. These bills soon fell 40 per cent below silver, and were suppressed, on complaint, by an order from Great Britain, which occasioned a serious loss to the holders. The truck medium of this colony was sugar. The par of exchange was 33 per cent—but usually in favor of Barbadoes.

Carribee Leeward Islands. In the islands of St. Christopher's, Montserrat, the Virgins, and others, silver proclamation value depreciated to 8s. per oz. Light pieces of eight current by tale. Exchange 50 per cent advance.

Jamaica. Heavy pieces of eight, originally current at 5s., were superseded, in this island, by light pieces—the former having been gradually shipped to England, at 10, 15, 20, and 25 per cent. In 1739, a light piece of eight passed current at 5s.—a heavy piece, at 6s. 3d., and silver at 7s. 2d. per oz. Par of exchange about 36 per cent, and generally in favor of London.

In consequence of this uncertainty and fluctuation in the colonial currency, exchange stood, in 1739, at 450 per cent in New England; 70 to 75 per cent in New York, New Jersey and Pennsylvania; 150 per cent in Maryland; 1,100 to 1,300 per cent in North Carolina; and 700 per cent worse than sterling in South Carolina.

Although the evils resulting from this condition of things affected every class of society to some extent, the greatest sufferers were the merchants of Great Britain, who sold their merchandise in good faith and on long credit, for which returns were made in a currency that was gradually depreciating from 8s. to 29s. per oz. silver. Hence, the creditor sustained a loss of 5 per cent upon his demand, for every shilling in the pound that silver rose in price, or paper money depreciated.

To these ruinous effects were superadded the proceedings of *seeking factors*, as they were termed; a class of men, who, to procure business from home, were accustomed to enter into contracts which could not be fulfilled—and, having nothing to lose, became bankrupts by profession, amid a prevailing insensibility to discredit. Indeed, it had almost become a maxim among shopkeepers, that the most feasible method of growing rich was to run boldly into debt, on a long credit—bear dunning with a good

grace—and, in the event, to claim the privilege of 12 months or more, while the law was taking its due course.

This insensibility to discredit was fostered by sundry causes, among which may be enumerated the allowance of appeals upon plain bonds, notes of hand, and defaults—unauthorized delay of executions—and a laxity in the enforcement of the laws for the relief of insolvent debtors.

Nor were the effects of this system manifested only in individual transactions. The internal administrations of some of the colonies partook largely of the general corruption; the popular representatives having refused, in several instances, to provide for the necessary charges of government, because the Governor and Council would not, in violation of instructions from the crown, concur in inconsiderate emissions. Foremost, in proceedings of this nature, was South Carolina, whose Governor was deposed on this account in 1719; and in 1731, on the arrival of Gov. Johnson, there had been no supply granted in the four preceding years. In like manner, no supplies had been voted in New Hampshire for five years preceding 1736.

Among other consequences attributable to these injudicious emissions of paper currency, was the frequent *rise of silver and exchange*, as instanced in the New England colonies. When silver had advanced, in 1706, to 8s. per oz., in consequence of light pieces of eight superseding heavy ones, it continued at that rate, so long as the amount of paper did not exceed a due proportion to the current silver. But, shortly after the emission of £50,000 in Massachusetts (1714,) and £40,000 in Rhode Island (1715,) silver rose to 9s. 2d. per oz., or 15 per cent advance above its standard value. In 1721, it advanced to 12s. in consequence of an emission of £100,000, in Massachusetts; and in 1722, to 14s. for a similar reason. It subsequently rose to 16s., at which rate it continued until 1728, when it experienced a farther advance, consecutively, of 2s., 5s., 11s., and in 1734, of 13s. to the oz. Between this year and 1738, in consequence of the amount cancelled exceeding the emission, exchange fell 40 per cent.

Experience showed, also, that inordinate emissions of paper were, in reality, *no addition to the medium of trade*. For example, in New England, in 1713, there were in circulation about two-thirds bills to one-third silver, at 8s. per oz. value. At that period, the public bills of the four provinces amounted to £175,000, at 8s. per oz. silver value, or 438,000 oz. value, with 219,000 oz. of silver currency, or 657,000 oz. silver value. In 1718, the public bills of New England were £300,000, at 12s. per oz. silver, or 500,000 oz. value in silver. In 1731, they amounted to £470,000, at 20s. per silver, or 470,000 oz. silver value. In 1739, it had risen to £630,000 at 29s. per oz. silver, or 434,000 oz. silver. It was owing to the depreciation of tobacco, by reason of its excess, that the Assembly of Virginia were induced to restrict its cultivation to 1,000 lbs. weight per annum per *titheable*—and the authorities of Maryland to 150 lbs. weight per *rateable*, in 1734 and 1735.

The popular arguments advanced, at that early period, in favor of paper currency, were similar, in many respects, to those which are in vogue at the present day. Among the most prominent were the following:—

1. The prevention of usury.

2. The depreciation of paper, in consequence of an arbitrary rise in the price of goods.

3. The shipment of silver, in balance, by reason of an excess of imports.

4. The enlargement of trade.

5. The increased facility of paying government debts and taxes.

6. Protection against the influx of foreign paper.

In reply to these arguments, the following method of reasoning was adopted by the opposition :—

First—Large emissions of paper money must naturally advance the rate of interest, in order to make good the sinking principal; and the case of Rhode Island was cited as in point. In 1737, silver was 26s. to 27s. per oz., but, in consequence of a large emission in 1739, it rose to 29s., which was equivalent to 7 per cent loss of principal. Hence, the lender, in order to preserve his principal, would require an interest of 13 per cent per annum. Between 1733 and 1734, silver rose from 22s. to 27s. in consequence of large emissions, which was equal to 22 per cent loss of principal, and required 28 per cent interest to the lender.

Second—When a large emission of paper is foreseen, goods naturally advance, because, being sold on long credit, the effect of the issue will be felt before the time of payment. Exchange and silver, being purely cash articles, could not experience any variation, until an addition was made to the currency by a new issue—as, for example, the large emission of 1733, which did not advance silver to 27s. per oz. until the autumn of 1734.

Third—In proportion as paper increased in quantity, silver became a profitable article of merchandise—and, being no longer required in trade, was gradually shipped off in balance. It was also contended that an excess of imports was attributable to the excessive amount of paper money afloat, which fostered a spirit of extravagance and reckless adventure, and emboldened the troop of *seeking factors* to glut the market with goods, by advising their principals at home of the abundance of money.

Fourth—In reply to this argument, it was maintained, that the amount of circulating medium invariably keeps pace with the increase and demands of trade; and when no paper currency existed, the people were better able to discharge government dues. This was supported by the experience of Massachusetts Bay—the first Assembly under the new charter having imposed a tax of £120,000 or upwards, as far back as 1692, and subsequently, in 1694, £70,000, both of which amounts were levied within the time prescribed by the act.

Fifth—It is not the government which provides money for its support, but the people who support it by their trade and industry. The government merely acts as steward of the public.

While the contest was rife between the respective advocates of a paper and metallic currency, various schemes of a public and private nature were proposed, particularly in Massachusetts, for compromising differences of opinion and rectifying the evil.

Among the former, the most prominent were :—

1. A proposition to empower the Government and Council, with the advice of merchants, to settle the rates of exchange with London, or of silver in province bills, at least once or twice a year—the payment of bonds, notes, and book debts in province bills, equal in value to the exchange or price of silver at the time of contracting. This latter suggestion was acted upon successfully in the Carolinas.

2. The incorporation of private companies, with power to emit bills of

credit on a metallic basis. The feasibility of this proposition was assumed from the fact, that, in 1739, Merchants' Notes (a private emission in Massachusetts,) were 33 per cent advance above Province Bills, which, although 25 per cent better by legislative enactment, circulated promiscuously at par with the depreciated currency of other colonies.

3. The receipt of no foreign bills in payment of public dues—the cancelling of former emissions—making new issues payable in gold or silver after a certain date (the gold and silver to be raised by imposts on goods, tonnage and light-house money)—and a prospective assessment of an equal amount at every new emission.

The principal private schemes were:—1st. A Land Bank. 2nd. A Credit or Bank of Produce and Manufactures. 3rd. A credit upon a silver fund.

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## Art. III.—COMMERCE IN THE STRAITS OF MALACCA.

EMBRACING NOTICES OF MALACCA, SINGAPORE, PRINCE OF WALES ISLAND, PROVINCE OF WELLESLEY, ETC.*

THE British possessions in the Straits of Malacca are composed of three settlements, viz.: Poolo Penang, or Prince of Wales Island, embracing the province of Wellesley, a dependence of it; Singapore, and Malacca. Penang and Singapore are islands, but both province Wellesley and Malacca are situated on the Malayan peninsula. Penang contains 160 square miles, Singapore 275, and Malacca 1,000 square miles. Neither of the settlements bounds the other, as they are separated by lines of coasts, hundreds of miles in extent, in the occupation of Malay princes, all of which, with very trifling exceptions, is a dense mass of forests, indented here and there by small streams and noble rivers. Singapore is in latitude 1° 20′ N., Malacca in latitude 2° 14′ N., and Penang in latitude 5° 14′ N.

Malacca, the most ancient of the settlements, and celebrated as a place of great trade in the annals of the Malayan empire, arrested the attention of the earlier Portuguese navigators, who formed a commercial establishment there, which, by cession, subsequently passed to the Dutch, who, in 1825, ceded the whole territory to the British East India Company. It now forms, together with Penang and Singapore, a part of their dominion, under the name of the Straits' Government. Each of the settlements has a chief magistrate, called a Resident Counsellor, who is also a judge of the superior court; and over the whole three settlements a governor is appointed, with very limited powers, by the governor-general, in council, of Bengal, under which latter government that of the Straits is put. The Straits, therefore, is a dependence of Bengal, as all the appointments and legislation originate in that government. The recorder, or law judge, is,

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however, appointed by the crown, and the laws are administered in the name of the sovereign. He is also judge of the admiralty and ecclesiastical courts.

Malacca, formerly a great place of commerce, as has just been said, became extinct, when Penang, by cession to the East India Company, was made a British port. The trade of Malacca consists of imports of rice, from Arracan, and of various articles from China, for the consumption of its Chinese and Malay inhabitants. The only articles of export are some twenty thousand peculs of tin, of good quality, and the walking canes which bear its name. The tin is smelted from stream ore, in and out of the British jurisdiction, principally by Chinese, who yearly resort to that port from China, via Singapore. This operation is attended with great risk to the undertakers and their laborers; for not unfrequently they fall victims to the cupidity of the Malay chiefs, who, too indolent themselves to undertake any task of continuous labor, seize the first opportunity of appropriating to themselves a rich booty. Hence the limited quantity of tin exported from a region so rich in this metal. Considerable quantities of gold dust are also sent from Malacca; but here again the enterprising adventurer is met, not only by treacherous Malays, but also by tigers and other wild beasts, who are the sole tenants of these vast forests among the sequestered glens and mountainous streams in which the precious ore is found.

Efforts are now making to obtain waste lands of the government, on reasonable terms, by enterprising individuals who wish to enter into the manufacture of sugar from canes, for the growth of which the soil and climate are well adapted. At present, neither cane-sugar or coffee are exported from that place.

The climate of Malacca is celebrated for its great salubrity, and is far from being as hot as its position so near the equator would indicate.

The population of Malacca consists principally of Malays. The Chinese are not numerous. The town of Malacca, which wears a sorry antique look, is for the most part peopled by a mixed race of Malay, Chinese, Indian, Portuguese, and Dutch blood; a race as free from ambition as they are prone to industry. The only Europeans are some of the members of the civil government and the military.

Poolo Penang, or according to its official name, Prince of Wales Island, lies at the western entrance of the Straits of Malacca, and is separated by a narrow strait from the continent. The island is mountainous; the highest hill being 2,800 feet above the sea, which is much resorted to by the inhabitants, and strangers from India, for its agreeable climate. Province Wellesley is immediately opposite, on the continent, and consists of a narrow flat band along the sea.

Penang was ceded to the East India Company less than a century ago, and soon became a place of commercial importance, which character it maintained until the establishment of Singapore. Valuable plantations of nutmegs, cloves, and pepper, were established by Europeans, which, all but the last, are still in being, and form the chief wealth of the colony. It carried on a brisk and profitable trade with the neighboring Malayan States, Sumatra, India, and China. The ships belonging to the East India Company on their voyage from England to China, via India, made Penang a calling place, where large amounts of spices, gums, tin, and other products of the Straits, were purchased or taken in exchange for cotton clothes,

ison, &c. &c. The junks even ventured so far into the unknown world from their own flowery land, and exchanged their ladings of tea, rhubarb, silks, camphor, &c., for beche-de-mer, sea-weed, opium, and other products of Europe or of the country.

In after years, the country now known as Province Wellesley was annexed to Penang, and the rice-fields with which it was soon crowded, made it the granary of that island. Valuable nutmeg plantations were also formed by Europeans and Chinese settlers. But a much greater spirit of enterprise was diffused in that colony by the late reduction on the sugar duties in the mother country, which induced the outlay of large capital in manufacturing establishments of this article. Within the last three years, much of the jungle which overspread the whole of that district has given way, and is succeeded by fields of thriving sugar-canes, for the cultivation of which its immense plains are found well adapted. From the drooping condition to which that island was reduced after the establishment of Singapore, it has greatly recovered, with every prospect of a permanent increase of prosperity. The population consists for the greater part of Malays and Chinese laborers. There are many Chuliahs or Klings, natives of the Madras provinces, about Georgetown, the chief town of the settlement. Commercial affairs on a large scale, are in the hands of the Europeans.

Singapore, the last founded British establishment in the Straits, is an island situated at the entrance of the China Sea, and separated from the Malayan peninsula by a narrow strait. It was purchased from the reigning sultan by the East India Company, in 1819, who declared it a free port, as well as the two older settlements, and open to the flag of every nation in amity with Great Britain; and they all three continue emphatically *free ports*, as neither duty on the imports and exports of merchandise, or port charges on the shipping, is exacted. Indeed, there is no custom-house establishment at either of the ports. A simple declaration of the quantity, description, and value of articles imported or exported, is, however, required by the registrar of imports and exports, who grants a pass for the same without fee. The island is beautifully diversified by hills, dales, and plains. The jungle has been considerably removed, and the clearings planted with gambier and pepper, by Chinese squatters, and with nutmegs and sugar-canes by Europeans. But agriculture is very much neglected. The population is made up mostly of Chinese; the Malays and natives of India together, are far less in number, and the Europeans are few.

The town of Singapore faces the straits of that name, and is airy, well-built, and convenient for the purposes of trade. The shipping trading between India and China necessarily pass close to its anchorage, and seldom fail to stop either to discharge or take in cargo, or to obtain supplies of provisions.

Many causes have contributed from the beginning of the settlement of the place to retard its growth,—among which may be mentioned the trade now directly carried on with Manilla, from Europe and America, by foreign houses who have established themselves there, and who, by their own importations, supply the markets with the same descriptions of merchandise formerly obtained here. Then came the restrictions imposed by the Netherlands Indian government, on imports into their colonies from this port, the effect of which has been for many years past to reduce in a

great measure the intercourse with the Dutch colonies to an illicit one, carried on by native smugglers. But even with the prospect of great gain, such is the terror of detection by the Dutch, that very few venture on this hazardous game. The last and greatest blow which the place has suffered was given when the ports of China were thrown open. Hitherto the northern ports of China had been supplied by means of their junks, with large supplies of Straits' produce and foreign manufactures, in exchange for the tea, camphor, and articles little known to Europeans, but consumed by the Chinese located in these seas. The junk trade, amounting to about three millions of Spanish dollars, yearly, was, therefore, one of the principal elements, as well as one of the most profitable trades to the European importers and native merchants in the settlement. But on the removal of the restrictions which had hitherto prevented foreigners having access to the ports of China, that country was soon filled with British and other fabrics, and Singapore ceased to be a depot. Its junk trade is now reduced to a few junks, principally loaded with cheap articles for the consumption of the Chinese population, and who take in return opium, seaweed, Mangrove bark, rattans, and other products of the Straits.

There still remains, however, the Bugis trade, which has all along been of as great importance as that of the junks.

The Bugis are a race of Malays, but a distinct people, located in every principal place and corner of the immense archipelago covering that immense equatorial basin, the boundaries of which are the Straits of Malacca on the West, the China sea on the North, New Guinea and the Gulf of Carpentaria in the East, and the Indian Ocean in the South. There is no known spot from Acheen Head, in east longitude 95°, to the land of the Papuas, in longitude 145°, or between latitude 10° North and 10° South, in which this industrious and bold people have not a trading establishment, or which, at some season of the year, is not visited by them for the purpose of trade. Although scattered here and there, in small communities, over such a great extent of sea, still the greatest union prevails among them, and wo to the piratical chiefs who oppress, plunder, or murder any of them; for on the first news of the aggression they unite in large forces from different parts, leaving off all other engagements whatever, to exterminate and make a lasting example of the aggressor. In August and September, they arrive here in fleets of prows, a craft of from 30 to 90 tons, fancifully rigged, to the number of from 250 to 370 sail, each one fully loaded with the products of their haunts of trade. Thus, those from Bali and Sombock bring rice, paddy, buffalo hides, &c. Those from New Guinea, tortoise-shells, pearls, and beche-de-mer. Again, those from the Gulf of Carpentaria have beche-de-mer and mother-of-pearl shell; from Borneo they bring pepper and rattans. Their manner of doing business is peculiar. Singapore abounds in Chinese brokers, who, at the well-known season for the arrival of the Bugis, embark in small skiffs and go out many miles on this lake-like sea, in pursuit of the stranger. On arriving on board of a prow, his first business is to ingratiate himself with the new comer, if he does not happen to be an old friend, and he generally contrives to strike up a bargain, or make an agreement for the preference of the cargo at the going price in Singapore. Depend upon it, he is not sparing of his pipe, nor of the pouch which contains the necessary condiments, such as tobacco, betel-nut, opium, &c.

The prow has now anchored in the snug little harbor inside of "Sandy

Point," the nacodah, or chief man on board, has gone on shore and partaken of the Chinaman's hospitality, and he is now delivering his cargo, according to agreement, to the brokers. But here all friendship and all confidence ceases; for the nacodah delivers nothing that is not weighed or measured on board, and paid for in good Spanish dollars before it is taken out of the vessel. So far the Chinese has had no opportunity to deviate from the path of honesty. But now comes an opening, and now commences a game of skill between them. The Chinaman, in purchasing and paying for the cargo, has bound the Bugis nacodah to give him the preference for the articles of the return cargo, at the fair market price, with which engagement he is ready to comply legally. But now the Chinaman is on his own ground, and here commences a game of cheat or no cheat. The Chinaman is bent on cheating in weight, measure, and quality; whilst the nacodah, wide awake, does his best to have fair play. But it is all in vain; the good-humor, the extreme politeness, and the cringing manners of the son of the flowery land, is more than a match for the grave follower of Mahomet, who never laughs on any occasion, and is not up to the practices of his crafty adversary. He makes a reluctant payment for the goods; he feels he has been cheated, and departs from the port, probably as well treated in the course of his trade as any of his compeers.

Now that the junk trade is nearly extinct, the Bugis, Siamese, Cochin-Chinese, and adjacent native states are the best customers that remain.

The accompanying printed official statement of the "Commerce of Singapore, for 1845, 1846," shows its present condition.*

It will then appear that the trade direct with the United States is trifling. This is mainly owing to our tariff law, which imposes a duty of 20 per cent on tea and coffee imported into the United States from other places than those of production. When this restriction did not exist, our cotton manufactures were easily exchanged in barter with the Chinese junk people and resident Chinese traders, for tea and coffee. But after the passage of the act of 1842, the trade suddenly became quite insignificant, and the sales of our fabrics are now confined almost entirely to the very limited consumption of the island.

In the meantime the traders of continental Europe have increased, and yearly increase and profit by our absence from this market, and having no competitors, are the principal purchasers of the coffee and tea brought in native vessels here. Could our ships take off their bulky articles, and employ their remaining funds in the less cumbrous, but more costly commodities, such as tin, gamboge, &c. &c., all of which, as well as coffee and tea, can generally be exchanged for cotton and other manufactures, there is little doubt that our trade would soon revive.

But the American trade consists now exclusively of empty ships coming here in search of freight for China; of opium clippers trading here from China on the way to India, or on the return voyage from India to China, and of ships which have loaded cotton in India for China. One or two vessels only arrive from the United States yearly, who divide their trade between Batavia, Singapore, and Penang.

SINGAPORE, *November*, 1846. J. B.

* The statement here referred to has not been received.

## Art. IV.—LOWELL: AND ITS MANUFACTURES.

The city of Lowell, from the number and extent of its manufacturing establishments, is one of the most prominent settlements of New England. As it has attained its present position altogether from the existence of those establishments, we design, in the present paper, by the aid of the evidence which is before us, to show the general progress of the place, as well as its condition, and incidentally to make some remarks respecting that particular branch of industry which constitutes the main feature of its enterprise. It is only about 25 years since the foundations of the settlement were laid. The first portion of the land, constituting its present site, was obtained in the year 1821; a tract of 400 acres, on which the most densely populated part of the city now stands, having been purchased at the cost of about $100,000. The purchasers of this property were incorporated, as the "Merrimack Manufacturing Company," on the 6th day of February, 1822. During that year, the first mill was erected. From such a commencement, the city has gradually advanced—not only through periods of great commercial prosperity, but even when disaster seems to have settled upon most of the manufacturing establishments throughout the country—down to the present time.

A railroad, connecting Lowell with Boston, was opened in 1835, through which, the two places are separated by the distance of a ride of only one hour; and other improvements were also made, relating either to the manufacturing enterprise of the place, or to the condition of the population. For the purpose of exhibiting most accurately the growth of the city, we present the following tabular statement, derived from official and authentic sources:—

POPULATION OF LOWELL AT DIFFERENT PERIODS.

| Years. | Males. | Females. | Total. | Years. | Males. | Females. | Total. |
|---|---|---|---|---|---|---|---|
| 1820,..... | ..... | ..... | Ab't 200 | 1836,..... | 6,345 | 11,288 | 17,633 |
| 1828,..... | 1,342 | 2,190 | 3,532 | 1837,..... | ..... | ..... | 18,010 |
| 1830,..... | 2,392 | 4,085 | 6,477 | 1840,..... | 7,341 | 13,640 | 20,981 |
| 1832,..... | 4,291 | 5,963 | 10,254 | 1844,..... | 9,432 | 15,697 | 25,163 |
| 1833,..... | 4,437 | 7,926 | 12,993 | | | | |

At the present time its population is 28,841.

Of its population of 29,000, about one-third are connected with the manufacturing and mechanical establishments, constituting 6,320 females, and 2,915 males. Besides the print works, and about 550 houses belonging to the corporations, there are 33 mills; the capital stock, invested in manufacturing and mechanical enterprise, being about $12,000,000. There are 1,459,100 yards of cloth, amounting during the year to 75,868,000 yards, manufactured in the place during each week; and, in each year, 61,100 bales of southern cotton are worked up. 14,000,000 yards of printed calico are also here annually made. 12,500 tons of coal are also consumed in the manufactories during each year, besides 3,270 cords of wood, 67,842 gallons of oil, 600,000 bushels of charcoal; and more than $1,500,000 are paid out annually for labor. Important improvements have been projected, and many have already been completed, with a view to the extension of the business and manufacturing operations of the place.

The city was incorporated on the 30th of March, 1836; and from that period the most strenuous measures have been adopted for the improve-

ment of the city, by the construction of side-walks and by lighting the streets, as well as for the benefit of the public health and the public morals, and for the erection of edifices of various sorts for the purposes of religious instruction, benevolence, and education.

Having made these general statements respecting the condition of Lowell, we now proceed to a consideration of the character of the particular companies, through which the manufacturing enterprise of the place is prosecuted, and we commence with that which supplies the water-power to the other corporations. "The Locks and Canals Company," acting under a charter which was granted in 1792, with a capital of $600,000, not only supplies the water-power to the manufacturing establishments, but manufacture machinery, railroad cars, and engines, and also contract for the erection of mills. They have two shops, one of very large size, a smithy, and a foundry—commonly keep employed 500 male laborers, and when erecting mills, furnish employment to about 700 more. 1,225 tons of wrought and cast iron, are manufactured by them during the year; and, by the aid of their extensive works, they can furnish machinery for a mill of 5,000 spindles in about four months. By a recent sale of their property, the shops and smithy, and the boarding-houses connected with them, have been purchased by individuals, who were incorporated during the last year under the name and style of the "Machine Shop;" and the manufacture of machinery, railroad cars, and engines, is now carried on by this company.

The several manufacturing corporations, we shall now specify, with the names by which they have been designated. *The Merrimack Manufacturing Company* has a capital stock of $2,000,000, with five cotton-mills, extensive print works, and 155 boarding-houses. It gives employment to 1,250 females, and to 550 males; manufactures 250,000 yards of cloth, each week; and works up, during that time, 56,000 pounds of cotton. *The Hamilton Manufacturing Company* has three mills, extensive print works, and 50 boarding-houses, with a capital stock of $1,500,000. Employing 650 females and 250 males, it makes each week 110,000 yards of cloth, working up in that time 42,000 pounds of cotton. *The Middlesex Manufacturing Company* has a capital stock of $750,000, and owns two mills, one of very great size, and two dye-houses. Employing 550 females, and 250 males, it makes, during each week, 12,000 yards of cassimere, and 2,200 yards of broadcloth, working up 1,000,000 pounds of wool. *The Suffolk Manufacturing Company* has a capital stock of $600,000, with two mills. It employs 340 females and 70 males, and makes 100,000 yards of cloth, composed for the most part of drillings.

*The Tremont Manufacturing Company* has a capital stock of $600,000, and two mills, making 115,000 yards of cloth each week, and working up during that time about 30,000 pounds of cotton. *The Lawrence Manufacturing Company* possesses a capital stock of $1,500,000, and employs 900 females and 170 males, producing each week 210,000 yards of cloth, and working up cotton, during that time, to the amount of about 65,000 pounds. *The Boott Manufacturing Company*, with a capital stock of $1,200,000, employs 780 females and 130 males, and makes 185,000 yards of cloth per week. *The Massachusetts Manufacturing Company*, with a capital stock of $1,200,000, employs 750 females and 160 males, making 292,000 yards of cloth each week. Besides these establishments, the *Prescott Company*, which was incorporated in 1843, have erected a

mill of large size upon the banks of the Concord River. About 70 men are, moreover, employed—in the foundry that was erected in 1840, by the *Locks and Canals Company*, at the expense of about $30,000—in making castings, which are used in the machine shops and factories of the city.

There are also various smaller manufacturing and mechanical establishments, which produce a great part of those articles which are required in a place of this particular character; and among other manufactures, we would designate those of powder, flannels, blankets, paper, carpeting, hollow ware and castings, locks, copper and brass work, brushes, saddles and upholstery, tin ware, boots, and various other articles of a similar character.* Accommodations, comfortable and even elegant, in many respects, are provided, not only for the citizens of the place, but also for those who are occasionally induced to sojourn within its environs; the streets are handsomely laid out, houses for religious worship have been erected, and all those arrangements have been completed, for the benefit of the population, which would seem to be dictated by a wise economy and a prudent forecast, for the purpose of placing the prosperity of the place upon a liberal and solid foundation.

Having described the general condition of the place, so far as the interests of its manufacturing establishments are concerned, we proceed to the consideration of its operative population. Since we are exhibiting the actual state of the largest cotton manufacturing settlement of the country, the character of the operatives, and the means which have been provided for their moral and intellectual improvement, constitute an important part of the subject. The plan which is here pursued for the benefit of this part of the population, and the influence which is exerted by this agency in improving the actual condition of the operatives themselves, are topics which require a particular examination.

It would seem evident that all the measures have been adopted, in the general regulation of the manufacturing establishments of Lowell, that are the best calculated to prevent evil, and to place the character of the operatives upon a respectable and safe footing. In the first place, there is a general superintendent, who, from the particular arrangement of the manufacturing establishments, has the whole corporation under his eye. The boarding-houses, governed by well-defined and salutary regulations, are leased only to approved tenants. In each room of the mills, is stationed some well-known and trustworthy overseer, who is made responsible for the good order and proper management of the apartment over which he presides. In each department of the repair shops, whether of iron, leather, or wood, is likewise an overseer, who, with a number of men under his care, has charge of all the out-door work; and there is a night-watch, who are required to pass through each room in the mills, a prescribed number of times, each night. It is evident, therefore, if each of those individuals entrusted with responsibility, faithfully perform their duties, that the most salutary guardianship has been adopted for those who are employed in the manufacturing establishments.

Another consideration connected with the actual condition of operatives

* For many of the items here enumerated, we are indebted to "The Statistics of Massachusetts," which were prepared by Mr. John G. Palfrey, the distinguished Secretary of that State.

in the manufacturing establishments of Lowell, relates to the hours of labor. This is a subject which has frequently received the careful consideration of those who are interested in the manufacturing system. There is no doubt that a long and continued confinement for a considerable term of years must be calculated to undermine the constitution, and tend otherwise to debase the character of the operatives, by depriving them of the opportunity of religious, moral, and intellectual improvement. It will, moreover, hardly be maintained, that it is the longest period of labor which is calculated to produce the greatest benefit, either to employers or to those who are employed. The proper medium would seem to be that, which, while it gives to the manufacturers the benefit of the industry of those who are employed in the mills, at the same time secures to the operative a pretty liberal period for rest and for improvement. In regard to the period of labor, in Lowell, the subjoined table shows the average hours per day of running the mills throughout the year, in all the corporations:—

| | Hours. | Min. | | Hours. | Min. |
|---|---|---|---|---|---|
| January, | 11 | 24 | July, | 12 | 45 |
| February, | 12 | 00 | August, | 12 | 45 |
| March, | 11 | 52 | September, | 12 | 23 |
| April, | 13 | 31 | October, | 12 | 10 |
| May, | 12 | 45 | November, | 11 | 56 |
| June, | 12 | 45 | December, | 11 | 24 |

We are also informed, that on Saturday evening the lamps are never lighted; and that Fast-Day, Fourth of July, Thanksgiving-Day, and Christmas, constitute the periods in which no work is done in the mills. From this table, it is perceived, that the average period of running the establishments is 12 hours and 10 minutes. Without professing to have entered very minutely into a practical understanding of the probable effect of the diminution of the hours of labor, the present term appears, upon general principles, to be too long; and we should much prefer a shorter term, if the period during the intervals of labor could be filled up with profitable employment, although that, of course, would depend upon various local circumstances which are best known to those who are immediately concerned in the manufacturing establishments themselves. It is not understood, however, that the full time of 12 hours and 10 minutes is employed in those establishments by the operatives, inasmuch as there are occasional suspensions of labor, which tend somewhat to reduce the terms of actual occupation. There is, moreover, another consideration, weighing in favor of the present term which is established in the Lowell mills, as distinguished from the manufacturing system of Great Britain; and this is, the fact, that the employment of operatives in the cotton-mills of our own country is not undertaken, as in England, as the business of a life. Not only are there but few very young children here employed, but the average period of the employment of individuals in the mills, does not vary far from four or five years. This fact, it appears, has been ascertained, so far as the Lowell mills are concerned, beyond question.

Another consideration connected with the state of the manufacturing system, as it is conducted in Lowell, is that of wages. It appears that a young woman from the country, who is employed as a spare hand, or a pupil, receives, beside her board, 50 cents per week; and as she advances in knowledge and diligence, she will receive from 75 cents to $1, and $1 50 each week. The average pay of all the female operatives, at the

present time, is about $1 93 per week, besides board; yet it sometimes happens that they earn even $3 and $4. Out of 50 girls, there were 24 who received $4.75 per week, besides board; but those cases were extraordinary. Yet, as an evidence of the thrift and prosperity of many of the operatives, it may be mentioned, that the factory girls of Lowell have about $100,000 in the institution for savings in that city. The usual pay of an overseer is $2 a day; and the average pay of male operatives, at the present time, is not far from 85 cents per day, besides their board; and that of the females, upon regular work, is little less than $2 a week, besides their board.

It appears, moreover, that out of the 6,320 female operatives of Lowell, one-eighth is furnished by Massachusetts, one-fourth by Maine, one-third by New Hampshire, one-fifth by Vermont, one-fourteenth by Ireland, and one-seventeenth by all other places, principally Canada. Of those operatives, three-sevenths are connected with some Sunday-school, as teachers or pupils, that number constituting 2,714 in all. There are 2,276 church members; 527 have been teachers in common schools, and a large majority state that their health is as good as before entering the mills. This, to say the least, speaks favorably of the moral condition of the manufacturing establishments in Lowell.

The health of the operatives who are employed in the manufacturing establishments, is a subject of great importance; and it appears that beneficial measures have been adopted, to provide for them the ordinary facilities of comfort, and to abate all causes of disease. Provisions have been made for this purpose, by the construction of side-walks, of brick and stone, running from the boarding-houses to the mills; by keeping the atmosphere of the rooms at a uniform temperature, well ventilated, and as free from dust as possible; by providing a hospital for sick operatives, and by securing the machinery in boxes, in order to prevent accidents. The comparison of the bills of mortality in Lowell, and other places similarly situated, indicate results not unfavorable to the occupation of manufactures as a source of health, and the testimony of experienced physicians would seem to indicate such a result. The evidence of the factory girls themselves, the respectable keepers of the boarding-houses in which they reside, and the physicians in the manufacturing settlements, all, moreover, tend to show, that the health of the operatives is not generally impaired by being employed in the mills, although, doubtless, a few feeble constitutions are somewhat undermined by the steady occupation and confinement.

The moral police which is established, also appears to be one of the greatest value, so far as it insures virtuous character and correct deportment, these lying at the foundation of the only solid and genuine prosperity. No persons are employed who are addicted to intemperance, or who are guilty of any immorality; and even associations with individuals of suspected character are deemed good ground for dismission from the mills, and also for the rejection of all applications of this sort. Every person wishing to leave a mill, can do so by giving a fortnight's notice; and the operative so discharged, having been employed during the year, is entitled to an honorable certificate, made in a printed form, with which each counting-room is supplied, testifying to the fact that such discharge was honorable. This discharge operates as a letter of recommendation, and furnishes important aid in enabling the operative to obtain employment, while the absence of this discharge is deemed an evidence of a contrary

character. Indeed, the names of all persons dismissed for bad conduct are entered in a book, which is sent to all the counting-houses in the city, and the individual is thus prevented from elsewhere obtaining occupation. The moral control, springing from the mutual and salutary restraint produced by a high standard of moral principle, is calculated to work out most beneficial results, as a suspected individual loses her caste and standing, and she soon finds herself known and avoided. The statistics of boarding-houses and mills indicate, so far, a healthful tone of morals, which serves as a valuable model to other manufacturing communities.

The moral and intellectual advantages, which are afforded by the city of Lowell to the factory operatives, are probably greater than those which are furnished by any other settlement of a like kind. Opportunities are furnished to the operatives for reading during the intervals of their labor, as well as during the evenings, and occasional absences from the mills, as on the Sabbath. Books for this purpose are obtained in the circulating libraries, and even newspapers, magazines, and reviews, are received by the operatives themselves. A large number attend the evening schools during the winter, and sometimes classes are formed by the female operatives, who take lessons in the study of some foreign language. Besides these, clubs are formed, that are denominated "Improvement Circles," which meet once during each fortnight, when the anonymous compositions of its members are criticised; and the attendance on churches—there being 23 regularly constituted religious societies in Lowell—and on the delivery of lectures, furnish facilities for the acquisition of various and useful instruction and knowledge. Besides its churches and schools, its libraries and benevolent institutions, founded upon humane and beneficent principles, are calculated to afford extraordinary advantages of various kinds for the benefit of its population.*

The females who are employed in the manufacturing establishments of Lowell, are generally the daughters of industrious farmers in the surrounding region, who, although they are enabled to acquire subsistence by their own labor from the soil, are, as a general fact, incompetent, from their narrow circumstances, to procure any surplus of ready money for their families; and hence it happens that those daughters are willing to enter the mills, in order to procure the conveniences which it affords. Under the influences, produced by a virtuous education at their own fire-sides, these female operatives enter those establishments under different circumstances from those which bear upon this class of operatives abroad. There is, accordingly, as a general fact, a regard for moral character, which acts as a safeguard against the inroads of every species of vice and immorality; and it may be safely alleged, that the condition of Lowell, in this respect, is worthy of all admiration.

Another important question, connected with the manufacturing establishments of Lowell, is that which is connected with the subject of profits. From testimony which is before us, it would seem that, although the manufacture of cotton throughout the nation has reduced the price to the consumer more than two-thirds, it has not yielded an average profit of 7 per cent upon the capital which has been invested in the enterprise. Although it has been more successful in Lowell, still the average dividends

* For many of the facts embodied in this article, we are indebted to Miles' "Lowell, as it Was, and as it Is."

here have not reached 10 per cent. The following table exhibits the average dividends of each mill, taken from their own books. A deduction might be made from this average, in each case, for loss of interest during the building of the mills, and the preparation of machinery for its use, which generally amounts to about 10 per cent on the capital; and also for fire insurance, the rate being from 1 per cent to 1¼, the sum insured, however, not usually exceeding one-half of the value of the share.

| Name of company. | Time of commencing. | Term of years. | Average of dividends. | Allowance for loss of int. and for fire ins. |
|---|---|---|---|---|
| Merrimack, | 1825 | 20 | 12¾ per cent. | less 1 per cent. |
| Hamilton, | 1828 | 17 | 10½ " | 1 1-10 " |
| Appleton, | 1829 | 16 | 9⅞ " | 1 1-8 " |
| Lowell, | 1831 | 14 | 9 " | 1 1-5 " |
| Suffolk, | 1833 | 11½ | 14 " | 1 2-5 " |
| Tremont, | 1833 | 11½ | 10½ " | 1 2-5 " |
| Lawrence, | 1834 | 11 | 7 " | 1 2-5 " |
| Boott, | 1838 | 6½ | 8 " | 2 " |
| Massachusetts, | 1841 | 4 | 5¼ " | 3 " |

Having exhibited the general facts connected with the largest manufacturing city of the North, it may be proper to present a few considerations relating to the manufacturing policy throughout the Union. During the year 1816, Pennsylvania stood at the head of the Middle States, all of which were closely identified with manufacturing interests, while the West was about equally divided upon the subject; and New England, being extensively engaged in commerce and navigation, was but little disposed to embark in the enterprise of manufactures. The plantation States then held the balance of political power; but it was demonstrated to the North, that the interest of manufactures, firmly established, would advance its prosperity, and to the South, that it would supply a market for its staple of cotton; and the law of 1816 was passed, laying the foundation of the present manufacturing policy of the Union. The enterprise has now been firmly planted in the country, both at the North and South, and its products are continually increasing. Lowell, which contains the largest number of cotton establishments of any city of the Union, and whose mills yield sheetings, shirtings, printed cloths, drillings, carpetings, blankets, broadcloths, cassimeres, and other articles of this character, is held up as a model of such establishments elsewhere; and in the character of its regulations, it certainly appears to have merited its reputation. We trust that it may advance in those measures which are calculated to improve the state of the manufacturing interest, as well as the moral and intellectual condition of the operatives; and, aided by the most respectable and intelligent gentlemen who administer its affairs, thus establish this essential enterprise of the country upon a solid and prosperous basis.*

* Since the preparation of this article, we have received from a correspondent, residing at Lowell, a statistical view of Lowell manufactures in 1847, which will be found under our "JOURNAL OF MINING AND MANUFACTURES," near the close of the present number of this Magazine.

## Art. V.—THE GRANARY OF THE WEST.

THERE having been some difference of opinion as to the true locality of this granary, and the facts necessary to give it a fixed habitation being in our possession, we have concluded to remove all doubt from the minds of intelligent inquirers by giving the exports of breadstuffs for the last commercial year,—from the river region by New Orleans, and from the lake region by way of Buffalo and Oswego. We shall also show that the bulk of the lake exports proceeds from a small section of the lake shore.

The interior portion of North America, drained by the Mississippi and St. Lawrence rivers, has been named, by an eminent writer, "the North American Valley." As there are no natural barriers separating the basins of these rivers, and as they are intimately connected by artificial channels of commerce and the mutual interchange of their varied productions, it is convenient to speak of them as composing one great plain, under the name above given.

With the exception of the country drained by the Amazon, the North American valley excels in natural resources, any other on the globe. Its mild climate gives it a decided superiority over the valley of the Amazon.

Until quite recently, the St. Lawrence, or lake portion of the interior plain, has been unsettled. The borders of the Ohio and its tributaries were comparatively well settled before the country of the lakes attracted much attention. All this is being changed. Immigration, since 1830, has poured along the United States borders of the great lakes, with yearly accumulating force, until it has become the great channel of colonization of the world. These immigrants are fed from the surplus of their predecessors, and enough is left for shipment to tide-water, to astonish dealers in the great markets of this country and Europe. The amount flowing down the Mississippi is large, but it is much exceeded by that floated on the lakes. The amount exported from New Orleans for the last commercial year, ending 31st August, 1846, was as follows, (see Merchants' Magazine, Vol. XV., p. 406):—

| | | |
|---|---|---|
| Flour..... | 573,194 barrels. | 2,865,970 bushels. |
| Corn..... | 941,589 sacks. | 2,824,767 " |
| | | 5,690,737 |

Not knowing the precise quantity in a sack, we have put it at three bushels. The quantity of *wheat* exported, we could not ascertain. There were received, 403,706 barrels and sacks. What part of this was converted into flour at New Orleans for home use and export is not known to us. If we estimate half as exported in wheat, at three bushels the barrel or sack, it will add 605,679 bushels to the above, and show the aggregate of breadstuffs exported from New Orleans to have been equal to 6,296,416 bushels. This was a great increase on the preceding year, but it will be very much below the current year. The uncommon occurrence of high winter prices and good stages of water through the fall, and thus far through the winter, have been highly favorable to that route for the surplus of the great valley.

The amount of breadstuffs that reached tide-water by the Erie and Champlain Canals during the last season of navigation was (see Merchants' Magazine, Vol. XVI., pp. 191, 192,) as follows:—

| | | |
|---|---|---|
| Flour | 3,063,441 barrels. | 15,317,205 bushels. |
| Wheat | ..... | 2,950,636 " |
| Corn | ..... | 1,610,149 " |
| Amount | ..... | 19,877,990 |

There were received in Buffalo, by the lakes:—

| | | |
|---|---|---|
| Flour | 1,374,529 barrels. | 6,872,645 bushels. |
| Wheat | ..... | 4,744,184 " |
| Corn | ..... | 1,455,258 " |
| Total | ..... | 13,072,087 |

From Oswego there was forwarded by the canal:—

| | | |
|---|---|---|
| Flour | 471,318 barrels. | 2,355,590 bushels. |
| Wheat | ..... | 433,446 " |
| Corn | ..... | 347,747 " |
| Total | ..... | 3,137,783 |

Taking the lake receipts of Buffalo as the measure of her canal exports, and adding to them the exports of Oswego, we have nearly the true amount sent to tide-water from the lakes, 16,209,870 bushels.

Of this amount, 12,284,970 bushels were sent by the small section of the lake coast embraced by and between Cleveland and Detroit. In a straight line, these places are distant from each other but 90 miles, and following the border of the lake, but 150 miles.

The following table is made up from official sources, and may be relied on for its accuracy. The amount shipped from the harbors of Vermillion and Black River, (Charlestown,) not being known to us, is not included:—

| | Flour. *bbls.* | Wheat. *bush.* | Corn. *bush.* | Bushels. |
|---|---|---|---|---|
| Detroit | 464,092 | 114,397 | 3,768 | 2,436,635 |
| Monroe | 155,108 | 272,847 | 4,804 | 1,053,387 |
| Eastern Michigan | 619,200 | 387,244 | 8,572 | 3,491,816 |
| Toledo | 164,689 | 810,963 | 1,159,312 | 2,793,790 |
| Lower Sandusky | 1,010 | 90,000 | 18,400 | 113,450 |
| Sandusky City | 51,855 | 843,746 | 50,904 | 1,153,925 |
| Milan | 830 | 636,141 | 19,855 | 660,176 |
| Huron | ..... | 30,292 | ..... | 30,292 |
| Cleveland | 368,355 | 1,672,340 | 527,270 | 4,041,385 |
| Total | 1,205,939 | 4,470,726 | 1,784,343 | 12,284,970 |

| | | |
|---|---|---|
| Deducting from the amount received at tide-water | 19,877,990 | bushels, |
| the amount shipped through Buffalo and Oswego | 16,209,870 | |
| There will be left | 3,668,120 | |

Of this, some portion came from the lakes by way of the port of Rochester. We know that several vessels were employed in carrying wheat from the upper lakes to that port, but we have not the means of ascertaining the amount. From these facts it appears that the State of New York furnished less than three and a half millions of bushels of the twenty millions sent to tide-water. The quantity required for consumption, up the Champlain Canal, in the river towns, and in the city of New York and suburbs, must be considerably above the amount furnished by the State of New York. Supposing the number in that State supplied with breadstuffs from the Erie Canal, to be 100,000, up the Champlain Canal; 200,000

in and through the river towns, and 600,000 in and through the city of New York, and that each person consumes six bushels, there will be a deficiency of nearly two millions of bushels to be furnished by other States.

But of all the facts relating to this lake trade, the most striking is, that so large a portion should proceed from so small a section of the lake coast. The entire extent of lake coast is some 4,500 miles, much of which has been settled longer than that around the southwestern border of Lake Erie; and yet we find the ports of this southwestern border, all situated in a straight line within one hundred miles of Cleveland, ship off more than three-fourths of all the breadstuffs that are sent from the lakes, through American ports.

| | | |
|---|---|---|
| In 1846, Buffalo and Oswego sent forward | 16,209,870 | bushels. |
| Detroit, Monroe, Toledo, Lower Sandusky, Sandusky City, Milan, Huron, and Cleveland exported | 12,284,970 | |
| Leaving, as the export of all the other ports around the lakes | 3,924,900 | |
| Of this there went from Chicago, 19,391 barrels flour, equal to | 96,945 | bushels |
| Wheat | 1,358,638 | " |
| | 1,455,583 | |
| From Milwaukie, 15,756 barrels flour, equal to wheat | 78,780 | bushels. |
| Wheat | 213,448 | " |
| Corn | 1,633 | " |
| Total | 293,863 | |

Of the balance, Michigan city and St. Joseph's sent forward the greater portion, probably more than three-fourths.

Over three-quarters of all the export trade of Lake Michigan is concentrated within a line of eighty miles around its head. The advantages of the heads of Lakes Erie and Michigan for concentrating the trade of great sections, is worth the study of reflecting and business men.

## Art. VI.—THE MINES OF UPPER CALIFORNIA.*

Upper California appears, from such indifferent information as can be obtained, to be remarkably rich in ores and other minerals, and I have no doubt that when the country becomes more thickly settled, and a thorough geological survey is made of it, a vast amount of mineral wealth will be developed, incredible almost beyond belief.

Quite a number of mines are already known to exist in that small portion of Alta California, lying to the westward of the Sierra Nevada or Snowy Mountains, of the extent and locality of which I shall endeavor to give you such information as is in my possession.

Ninety miles (by sea) south of St. Diego, there are some very extensive copper mines belonging to Don Juan Bandino.

From sixty to eighty miles south of Monterey, on the rancho (farm) of

* The following remarks upon the Mines of Upper California, were read before the Lyceum of Natural History, New York, December 21st, 1846, by L. W. Sloat, Corresponding Member, and are now first published in the Merchants' Magazine, by permission of the Society.

Don Jose Rafael Gonzales, there are coal beds; and at St. Pablo, on the Bay of San Francisco, there are others.

At the mission of St. John's, twenty-five miles north of Monterey, there are large beds or mines of sulphur. Other mines have also been discovered near the town of Sanoma—at the northern extremity of the Bay of San Francisco—where, I am informed, pieces of about a pound in weight have been found, perfectly pure, and without any admixture of extraneous matter.

Fifty to eighty miles north of Monterey, there are said to be several silver mines. Twenty miles east of the same place, there are mines of silver and lead, which have been gotten out, but not separated. On the southeast end of the Island of Catalina is a mine from which some silver has been successfully extracted.

There are several places throughout California where asphaltum is obtained, and is used for roofing and flooring houses, first mixing it with sand. "I have in these places," says my informant, "seen many rabbits, squirrels and birds, half buried in the pitch (asphaltum,) where they soon die." A few miles north of Santa Barbara, the sea, for four or five miles, is colored by the asphaltum oozing from the banks and running several miles upon the coast.

Five or six miles from the Pueblo de San Jose, and near the mission of Santa Clara, there are mines of red and yellow cinnabar (quicksilver ore,) discovered in 1845, by Don Andreas Castellero, of Mexico. The place had been known for eighteen years, and was supposed, by the Californians, to be a silver mine. In 1845, Don Andreas Castellero being in the vicinity, heard that the mountain contained rock different from any other in that region—went to examine it—immediately denounced it before the nearest alcalde, and then made known what it contained. This ore has produced from 25 to 30 per cent of pure metal, from very imperfect experiments. The result was obtained by pounding the red ore to about the size of a large pea and putting it into an old gun-barrel, the muzzle end of which was immersed in a pot of water, and the other part submitted to the action of a strong fire—a plate in the bottom of the pot receiving the mercury, which was afterwards strained through a silk handkerchief. The red ore produces far better results than the yellow.

A much more indifferent method produces about 15 per cent. The process is as follows:—Upon a shallow wooden tank, containing water, is piled sufficient of the ore to fill a whaler's try-pot, which is covered over the heap and cemented well around what is *now* the bottom, with clay—a large quantity of wood is put upon the pot—fired, and at the expiration of from fourteen to sixteen hours, the quicksilver is found in the tank. Much of this ore, however, is but little affected by the process, and if subjected to a proper analysis would yet yield largely. The mine is situated upon the top of a steep mountain, a mile or more from the plain, to which the ore is brought down on mules.

Near the town of Sanoma, about sixty miles from the entrance of the Bay of San Francisco, there are other mines, the rock or ore of which is of a greyish cast. I am informed that its yield, with the same imperfect experiments, is fully equal to the San Jose mines, which are represented to be inexhaustible.

The Indians have brought to the mission of St. John's lead ore by the blanket full—refusing to tell from whence they brought it. On the rancho

of Captain Richardson, the north side of the entrance of the Bay of San Francisco, there is lead. My informant writes:—"I have seen a piece of some two or three pounds, said to be from the rancho of Captain Richardson, at San Francisco; this piece was full of pebble stones, which, when taken out by a nail or knife, left the lead entirely pure, and indented like honey-comb."

On the Sacramento River there is much slate of the best quality.

Plumbago (black lead) is also said to be in California.

At San Fernando, near San Pedro, by washing the sand in a plate, any person can obtain from one to five dollars per day of gold, which brings, in the United States, seventeen dollars per ounce. The gold has been gathered for two or three years, although but few (at least of the native Californians) have the patience to look for it.

There is not the least doubt in my mind, from all the information I was enabled to obtain during my short stay in California, that gold, silver, quicksilver, copper, lead, sulphur, asphaltum and coal, are to be found in all that region; and I am confident that when it becomes settled (as it soon will be) by Americans, that its mineral developments will greatly exceed, in richness and variety, the most sanguine expectations. The Indians have always said there were mines, but refused to give their locality, and the Californians did not choose, or have been too lazy, to look for them. Indolence and poverty have prevented the working of those already discovered.

## Art. VII.—PLANK ROADS—NEW IMPROVEMENT.

Nothing is more essential to the prosperity of a city than good roads. They form a system of arteries and veins, drawing all to the great centre. Their importance was well understood by the ancients. Athens, Lacedæmonia, Thebes and other States of Greece, bestowed much attention upon them. The Carthagenians are said to have originated paved roads, and Rome followed and extended the process of their construction. Under Julius Cæsar, the seat of government was connected with all the chief towns, with paved roads. During the African war, a paved road was made from Spain, through Gaul, to the Alps. This was followed up afterwards, by lines of communication to every important point, even to the mouths of the Danube. Seas did not daunt the enterprise of these people. Good roads were made on the shores of the continent of Europe. England was intersected, and penetrated at important points. The first road constructed there, was made by Roman hands.

This glorious example was neglected by the Britons. Roads were allowed to go to decay, and no new ones to take their place. For centuries following, mere paths over the natural surface of the earth were used, similar to those usually found at the new settlements of the West, called Indian trails. It so remained until the sixteenth century, when, under Charles II., the first turnpike road was established in England, and tolls allowed to be received. One hundred years ago, most of the goods were conveyed on pack-horses. As late as 1770, Arthur Young, in his Travels, over the road where the Manchester and Liverpool Railway is now constructed, wrote the following. He said:—

"I have not, in the whole range of language, terms sufficiently expressive to describe this infernal road. Let me most seriously caution all travellers, who may accidentally propose to travel this way, to avoid it as they would the devil. For a thousand to one they break their necks, or their limbs, by overthrows or breaking-down. They will here meet with ruts, which I actually could not fathom, floating with mud. The only mending it receives, is tumbling in some loose stones, which serves no other purpose than jolting a carriage in the most intolerable manner. These are not merely opinions, but facts; for I actually passed three carts broken down in these eighteen miles of execrable memory."

The last fifty years have changed the character of all the principal roads in England. A revolution has commenced, which is still progressing, in road-making, and every improvement made, is immediately fostered by government. What has been said of England's neglect of roads, will apply equally to the United States. Previous to 1790, roads were neglected throughout the country, and but little attention to scientific principle was given in their construction. Some thirty years back, they began to be laid out under special acts of the various States, and, in many instances, charters were given for the erection of toll-gates. The greatest improvements in roads have taken place since McAdam's method of using broken stone has been introduced. The building of the national road by government, on this plan, contributed to its general introduction among us. This has proved too expensive on common country roads. None but great public thoroughfares can support their cost. Even this has been superseded by railroads, and they are fast becoming neglected except in cities. The dust in summer and mud in winter, produced by broken stone, being objectionable in streets, a resort to wooden blocks was made, as an experiment, in 1839, by many city corporations; among others, New York, Boston and Rochester. They apparently worked well for a few months, and all were delighted with the move; no dust, no mud, and no noise. Time, however, has too truly proved their unfitness.

The great want of some cheap method to construct roads in the country, where the McAdam plan would be too expensive, has been long felt, and many minds have given it deep reflection.

The plank road system originated in Canada, in 1835. The Commissioner of Highways, in repairing a road, found it difficult to devise any way to better the condition of a few rods of quick-sand. He tried various experiments without much success. Finally, he conceived the idea of sinking heavy timber and planking it, similar to bridging, except he filled the vacancy between the sleepers or sills with stone and earth, in order to let the plank lay solid upon it. He watched the operation of it with interest, and found he had overcome the quick-sand trouble. At the end of two years, the plank still remained solid. He then tried the same experiment over a marshy soil. It worked well. From this, he was convinced of the efficacy of a common road made of plank.

A company was formed soon after, for the construction of a plank road from Toronto to the river Rouse, which was finished in 1839. It met public expectation. Another was built from Whitly to Lake Ontario; one from London to Godrick; another from Coburg to Rice Lake; one finished from the Rapids, on the St. Lawrence, from Coto de Lac to ———, about 16 miles long; and one from Longuile to Chambly, commencing three miles below Montreal, which is 15 miles long. They have been sufficiently tested to the satisfaction of all, as being the best roads ever

made for ordinary passage, and capable of being used next to railroad, in expedition of travel.

In the United States, but little has ever been known of them, until three years ago, except by visiters to Canada, who always spoke of them in high commendation. The Rochester Democrat, in 1843, contained several letters in reference to them, written by a gentleman of that city, who was travelling through Canada. The letters were extensively copied by the press, and the adoption of them into this country urged. Since then, charters have been obtained for the construction of three roads in the State of New York, viz.: one from Buffalo to Aurora; another from Buffalo to Lancaster; the third from Salina to Brewerton. The last mentioned is the only one now constructed in the United States. It is 12½ miles long. George Geddes, of Onondaga county, was the engineer. As the subject is becoming a topic of much interest throughout this State, the mode of construction is of interest. We extract from a letter of Mr. Geddes to a friend:—

"In case it is expected that a very great amount of travel is to pass over the road, two tracks, each eight feet wide, will be required; but it is not probable that any road coming into your town will require more than one track; at any rate for more than a few miles out of town. It is difficult to persuade a man, who has not seen the thing tried, that one track is entirely sufficient, except in cases of an extraordinary amount of travel; but it is so, and the road out of Salina has but one track, except over places where proper earth could not be obtained with which to make a road alongside of the plank. Over the light sand plains, where, in dry weather, a wagon would cut into the sand, we laid two tracks; but over clay or common earth, we laid but one; and during the very rainy autumn just past, our road has constantly been in good order for teams to turn out.

"In case there is so much travel that common earth cannot be kept in good order for turning out—then the tolls paid by that travel will compensate for the cost of the second track; so that the interests of the public and the owners meet, and the thing will regulate itself. If the second track is required, then its cost will be a good investment.

"There is another particular in which the public interests and the interests of the owners go together—the tolls. The charter of the Salina road allows the Directors to regulate the tolls within certain limits; in summer we exact three-fourths, and in winter, one-half the sum allowed us from vehicles drawn by two animals. It is our interest to encourage such an amount of travel as to insure the wearing out, rather than the rotting out of our timber, and by taxing the travel lightly, we increase the amount.

"The track is laid on one side of the road, so that teams coming into town keep it, and teams going out yield it, in passing. The tonnage being chiefly in one direction, it is generally the unloaded teams that have to do all the turning out.

"The plank are of hemlock, eight feet long and four inches thick, laid crosswise of the road, on sills four inches square. The earth is broken up and made fine, the sills are bedded into it, and the surface graded smooth; the plank are then laid on the sills, care being taken that the earth is up to and touches the plank at every point. This is important, for if any space be left for air under the plank, or alongside the sills, dry rot follows. I saw, in Canada, a road that had been worn out, and was being rebuilt. The sills were good and the plank were sound on the under side, save where air had supplied the place of earth, and there they were destroyed by rot. The plank having been laid, the next thing is to grade a road some ten or twelve feet wide on one side, and two or three on the other, by taking earth from the ditches on each side, and bringing it, by a ditch-scraper, just up to and even with the upper side of the plank, so that if a wheel runs off the track, it passes upon a smooth surface of earth. The ends of the

plank should not be laid even, but a part should project from two to four inches by the general line, to prevent a rut being cut just along the ends of the plank. If the ends of the plank are even, and a small rut is made, the wheel of a loaded wagon will scrape along the ends for some distance before it will rise up to the top of the plank, unless the wagon moves in a direction nearly across the road; but if the wheel cannot move two feet forward without coming square against the edge of a projecting plank, the difficulty of getting on the road is avoided. It is not necessary to pin or spike the plank to the sill.

"Perfect drainage must be secured, and to that end the ditches must be deep and wide, and good sluices wherever water crosses the road. This is the important point—drain perfectly.

"As to the cost of such a road, I will answer you by giving you a copy of my estimate for the Salina road, which very considerably exceeded the actual cost. It is proper to inform you this road was made upon the bed of an old road, filled in many places with stone and logs. The right of way cost us nothing. The estimate was for plank three or four inches thick. Where we laid two tracks, we laid one of them with three inch plank, but the main track was four inches thick. It is economy to use thick plank if the travel is sufficient to *wear* out the road, but if it is to rot before it is worn out, then, of course, thin plank should be used. The Canada roads are generally three inches thick, and are made of pine, and last about eight years.

"ESTIMATE OF THE COST OF A SINGLE TRACK PLANK ROAD, EIGHT FEET WIDE, FOR ONE MILE:

Sills 4 in. by 4 in.....14,080 ft. board meas.
8 ft. width of plank 3 in. thick,..126,720 " "

| | |
|---|---|
| 140,800 feet, at $5 per thousand... | $704,00 |
| Laying and grading, $1 per rod,..... | 320,00 |
| Engineering, superintendence, &c., 10 per cent,..... | 102,00 |
| Gate-houses, say..... | 100,00 |
| For a 4 in. road add 42,240 ft., at $5 per M..... | 211,00 |
| Sluices, bridges and contingencies,..... | 63,00 |
| Total,..... | $1,500,00 |

"We did not let out to contractors the construction of our road, for the reason that we were very desirous of securing the bedding of the timber perfectly, a thing that my observation in Canada satisfied me was not always done, when the work was made by the rod; and as plank road making was a new business, no person was willing to undertake the work at the price estimated. By doing our work by the day, we not only secured its perfect construction in this particular, but we saved some thousands of dollars in the cost. After we had acquired experience and skill, we reduced the cost of grading and laying the road to from thirty to fifty cents a rod, including construction of sluices and bridges, and grubbing, and in short, everything but materials and superintendence.

"If you make plank roads, I advise you by all means to do the work by the day, and put at the head of the business, a man who is fully competent to engineer and direct the whole matter. The variation of a few inches in the line of a road, may tell largely in the cost of construction. The lumber you can best obtain by dividing the road into eighty-rod sections, staking them out and letting them to the most favorable proposers—the lumber to be distributed along the line equally as near as may be, as it is delivered.

"As to the value of plank roads to the public and to the owners, I can best answer you by saying that I have seen a McAdamized road taken up, eight feet in width, to make room for a plank track—and by informing you that men who have travelled over the best roads in England, say that there is not in Great Britain as good a road as the Salina Plank Road."

The Longuil and Chambly plank road in Canada, was relaid the past season, after a wear of eight years. The income of the road paid a divi-

dend of 10 per cent on the cost of the first construction, and reserved a sufficient sinking fund to pay for re-building.

Fourteen applications are made to the present session of the New York Legislature, for charters to build roads of this description,—four of them to lead from the city of Rochester.

## Art. VIII.—COMMERCE OF RIO DE JANEIRO, FROM 1836 TO 1847.

THE trade of Rio is very extensive, and has increased rapidly during the last few years. It is now by far the greatest mart for the export of coffee. The shipments of this important article, which, in 1830, amounted to 396,785 bags, have increased with such unexampled rapidity that, in 1839-40, they amounted to 1,095,346 bags, that is (taking the bag at 154 lbs.,) to 168,683,284 lbs., or 75,305 tons—being nearly equal to all the exports of coffee from all the other ports in the world! Sugar is also an important article of export from Rio, though latterly it has been decreasing, and does not now exceed 10,000 cases (15 cwt. each;) the exports of sugar from Santos are, however, increasing; and amounting, in 1839-40, to 624,750 arrobas. The other great articles of export from Rio are hides, rice, tobacco, rum, tapioca, ipecacuanha, manioc flour, and other inferior articles. The export of cotton has almost entirely ceased; and that of gold, diamonds, &c., is mostly clandestine, and too inconsiderable to be worth notice. We subjoin

AN ACCOUNT OF THE QUANTITIES AND VALUES (IN REIS) OF THE PRINCIPAL ARTICLES OF BRAZILIAN PRODUCE, EXPORTED FROM RIO, IN 1840.

| | Reis. | Reis. |
|---|---|---|
| Coffee, 5,255,950 arrobas, at 3,500 | 18,395,825 | |
| Expenses, including duty and commission, 17½ per cent | 3,219,269 | |
| | | 21,615,094 |
| Sugar, 575,003 arrobas, at 2,100 | 1,207,500 | |
| Expenses, as above, 15 per cent | 905,620 | |
| | | 2,113,120 |
| Hides, 184,292, at 6,300 | 1,161,039 | |
| Horns, 100,000, at 4,500 per 100 | 4,500 | |
| Tanned half-hides, 17,500, at 2,500 | 43,750 | |
| Rice, bags, 17,805, at 9,000 | 161,145 | |
| Tobacco, arrobas, 100,000, at 4,500 | 450,000 | |
| Rum, pipes, 3,110, at 65,000 | 202,150 | |
| Tapioca, barrels, 250, at 9,000 | 2,250 | |
| Ipecacuanha, lbs., 20,000, at 500 | 10,000 | |
| Jacaranda, manioc flour, and various articles | 20,000 | |
| | 2,234,834 | |
| Expenses, as above, 12½ per cent | 279,350 | |
| | | 2,514,184 |
| Total value of exports during the year 1840 | | 26,242,398 |

Being, at the medium exchange of the year, equal to about £3,400,000.

The aggregate value of the exports, in the undermentioned years, have been—

| | Reis. | | Reis. |
|---|---|---|---|
| 1836, | 18,711,824 | 1839, | 23,362,298 |
| 1837, | 15,362,642 | 1840, | 26,242,398 |
| 1838, | 20,455,865 | | |

The principal article of import consists of cotton goods, the value of

which amounts to full one-third of the total value of the imports. Next to cottons are woollens, linen, and silk manufactures, wines, jewellery, and iron-mongery; flour, meat, fish, butter, and other articles of provision; spirits, salt, earthenware, paper, and a host of other articles. Of the total value of the imports, in 1838-9, estimated at 29,450,698 rs., that of the cotton goods, which were almost wholly supplied by Great Britain, amounted to 10,555,704. We subjoin

AN ACCOUNT OF THE VALUE OF THE IMPORTS INTO RIO, DURING EACH OF THE THREE YEARS ENDING WITH 1838-9, SPECIFYING THE VALUE OF THOSE FURNISHED BY EACH COUNTRY.

| Countries. | 1836-7. Reis. | 1837-8. Reis. | 1838-9. Reis. |
|---|---|---|---|
| Great Britain and her possessions... | 13,345,787 | 2,689,846 | 15,092,554 |
| France..... | 3,921,145 | 2,804,160 | 4,314,363 |
| United States N. A..... | 1,054,474 | 1,667,863 | 1,799,687 |
| Hamburg and Bremen..... | 2,037,938 | 1,661,875 | 1,596,317 |
| States in the R. Plata..... | 1,098,264 | 1,599,680 | 1,577,217 |
| Portugal and her possessions..... | 1,671,329 | 1,556,395 | 2,652,598 |
| Spain..... | 357,649 | 682,426 | 765,413 |
| Italy..... | 473,674 | 265,260 | 475,015 |
| Ports of the Pacific..... | 282,644 | 216,057 | 9,994 |
| Baltic ports..... | 166,699 | 155,040 | 350,255 |
| Fisheries..... | 130,595 | 121,751 | 160 |
| Holland and Belgium..... | 110,267 | 115,793 | 109,243 |
| Austria..... | 55,440 | 69,451 | 2,471 |
| Cape of Good Hope..... | 21,011 | 28,966 | 5,338 |
| Sundry places..... | 12,418 | ..... | 19,958 |
| Coastwise, duties paid..... | 485,203 | 129,600 | 622,820 |
| Ditto, duties unpaid..... | 152,563 | 502,122 | 57,295 |
| Total..... | 25,480,100 | 24,316,275 | 29,450,698 |

The customs' duties at Rio, in 1840, amounted to 1,929,822 reis on imports, and to 1,920,406 rs. on exports. During the same year, 858 ships arrived at Rio from foreign ports; and 812 sailed, of which 512 were laden with Brazilian produce, and 230 in ballast. On the 1st of June, 1841, there were in the port 21 British, 27 Portuguese, 12 American, &c., ships. The arrivals coastwise, in 1840, amounted to 1489.*

The following particulars of the commerce of Rio de Janeiro, are derived from the circular of a highly respectable commercial house at that port, dated Rio de Janeiro, January 1st, 1847. It furnishes a succinct statement of the trade of Rio, during the year 1846:—

ANNUAL STATEMENT OF THE TRADE OF RIO DURING THE YEAR 1846.

Arrivals of American vessels, last year, were from United States, 124; elsewhere, 120; whalers, 28; total, 273. Being an increase of 20 over those in 1845.

*Imports.*—From the United States have been received 193,123 barrels flour, 197 barrels bran, 4,685 packages domestics, 1,658 packages tea, 9,752 boxes sperm, and 1,536 boxes composition candles, 683,000 feet lumber, 8,877 barrels rosin, 1,224 barrels beef, 1,470 barrels pork, 121 hogsheads tobacco, 892 boxes and kegs tobacco, 52,000 feet oars, 325 tons coal, 130 cases cassia, 356 bales hay, 1,595 coils cordage, 74,795 pounds wax, 109 dozen chairs, 7,292 hams, 4,128 kegs lard, 432 packages tacks and nails, 2,248 packages spirits of turpentine, 148,000 segars, 215 packages drugs, 600 packages sail-cloth, 835 barrels apples, 70 barrels pitch

* From Freese's Rio Circular, and private returns from Rio.

and tar, 2,505 boxes fire-crackers, 787 tons ice, 5,024 kegs gunpowder, 60 bags pepper, 407 boxes soap, 800 drums fish, and sundries. From whalers, about 50,000 gallons oil.

From Europe, have been received 14,015 barrels flour; and from Valparaiso, 4,218 bags wheat.

FLOUR—IMPORTS AND SALES.

| | | |
|---|---|---|
| Stock in hand, January 1st, 1846, | barrels, | 10,700 |
| Imported from United States, | " | 193,123 |
| " Europe, &c., | " | 17,177 |
| Total supply, | | 221,000 |
| Stock in 1st hands, 1st January, 1847, | | 21,000 |
| Sales in 12 months for consumption and export, or per month 16,666 barrels, | | 200,000 |

At the commencement of the year, the bakers held moderate stocks, and there being a demand for the Rio Grande, holders were very firm, and large sales of Richmond were made at 20‖*a*21‖ nett $8*a*8 50; Baltimore, 18‖*a*18‖500 nett $6 87½*a*7 50; advices from England then checked the market. The arrivals to July were large. Prices declined gradually to 18‖*a*19‖ for Richmond. Baltimore and Philadelphia being more wanted, were maintained at 17‖*a*17‖500. The arrivals in July were large, but an unexpected demand for the Cape of Good Hope and the South, relieved the market of 17,000 barrels, at a reduction of 1‖*a*1‖500 per barrel. At the close, holders were firm at 16‖ for Baltimore, 18‖ for Richmond. The sales in August to 15th, were 10,000 barrels at 15‖500*a*16‖ for Baltimore, 17‖*a*18‖ for Richmond.

The usual time of arrival of new flour being near, alarm was taken, and sales of Philadelphia made on 26th, at 13‖ and 12‖500; being a reduction of 4‖500 per barrel in three weeks. In September, the arrivals were moderate, but considerable sales were made at very low prices; the impression being given, that the crops in the United States would be very heavy, prices low, and large shipments, in consequence of the determination of some holders not to be left with any old on hand. Richmond sold at 16‖*a*16‖500; O. Dance and Columbia, 12‖500*a*13‖; Richmond Country, 12‖; and Baltimore, 11‖000. Some holders of good flour retired their stocks, being convinced that there was no cause for alarm. In October, the arrivals were rather large; but holders were enabled to obtain better prices, assisted by the account of the short crops in Europe, and the certainty that the exports from the United States would be moderate, especially of Richmond City. New Gallego arrived on 26th, and was sold at 18‖500*a*19‖000; old Gallego, 17‖*a*18‖; O. Dance, 13‖500; Baltimore, 12‖.

In November the import was moderate, and sales continued to be made at improving prices. New Richmond, 19‖*a*20; old Richmond, 17‖*a*19‖; old Columbia Mills, 16‖; new Baltimore, 13‖*a*15‖. Arrivals in December large, and considerable sales were made, early in the month, at 21‖ for new Richmond; old Haxall, 18‖*a*19‖; Baltimore, 17‖*a*17‖500; but holders, encouraged by the European quotations and inquiries for the South, advanced their prices to 22‖ for Richmond, 18‖ for Baltimore, although the stock had increased to 21,000 barrels; being under the belief that the export from the United States to this coast would fall off, and that the bakers who had moderate stocks must buy largely in January. The import of Richmond City Mills flour was in excess the first six months of the year; during the last six, it has been only 4,000 barrels per month. The

average has been 6,000, which is the utmost that the market requires. Of other sorts, 8a10,000 per month is a fair supply.

*Domestics.*—Importations moderate, compared with 1845; but the large stock at the beginning of the year, and large supplies of English imitations, have kept prices very low and gradually declining. The last sales have been at auction, at 275 rs. for blue drills, nett 9 cts.; Shetuckees stripes, 250 rs. nett 9 cts. York stripes are getting out of use, the more common qualities being preferred; they cannot be quoted over 290 rs. nett 10¼. There has been some demand for export to the coast, and brown drills would bring 230 rs. nett 8 cts.; 30 inch shirtings, 175 rs. nett 6¾ cts. The stock is upwards of 2,000 packages, mostly blues and stripes. The stock of English is large; and the auction sales in January, it is to be feared, will depress prices still more.

*Spirits Turpentine.*—The consumption has considerably increased, and fair prices have been obtained; last sales at 260 in tins, nett 55 cts. per gallon, and 1,220 barrels nett 40 cts. *Chairs.*—Split rattan and straw matting are quite unsaleable, and would discourage all shipments, except of regular articles. *Coffee.*—The supplies during the first six months were abundant, being increased by large arrivals of the new crop, which was very early and weather fine; this continued uninterrupted till the end of the year, and the planters have sent forward their crops faster than ever known. Prices were highest in April, when superiors were from 3‖400*a*3‖550, 6¾*a*7 cts. on board. They have gradually declined since, and in December, superiors were sold at 2‖800*a*3‖000, 6¼*a*6½ cts.; good firsts, 2‖650*a*2‖750, 5¾*a*6 cts. The demand has been equal to the supply, and the stock does not now exceed 40,000 bags—prices firm. In consequence of the heavy arrivals since June, and the weather having become unsettled, the general opinion is, that supplies henceforward will be much less, and the quality, as usual, will be more inferior.

Exports of coffee, the past ten years, are as follows:—

| | To Europe. | | To United States. | | Total. | |
|---|---|---|---|---|---|---|
| | *Bags.* | *Pounds.* | *Bags.* | *Pounds.* | *Bags.* | *Pounds.* |
| 1837... | 499,264 | 64,000,000 | 128,375 | 20,500,000 | 627,639 | 100,300,000 |
| 1838... | 513,768 | 79,800,000 | 237,036 | 43,000,000 | 780,804 | 125,100,000 |
| 1839... | 525,802 | 82,100,000 | 336,620 | 53,300,000 | 862,422 | 137,400,000 |
| 1840... | 705,018 | 84,100,000 | 297,248 | 47,600,000 | 1,002,296 | 160,400,000 |
| 1841... | 539,384 | 112,800,000 | 427,299 | 68,100,000 | 966,683 | 154,100,000 |
| 1842... | 809,993 | 86,000,000 | 343,734 | 55,000,000 | 1,153,731 | 184,600,000 |
| 1843... | 618,614 | 129,600,000 | 542,714 | 86,600,000 | 1,161,328 | 185,500,000 |
| 1844... | 678,552 | 98,900,000 | 554,382 | 88,600,000 | 1,232,935 | 197,100,000 |
| 1845... | 645,023 | 108,500,000 | 546,615 | 86,400,000 | 1,191,641 | 189,400,000 |
| 1846... | 774,025 | 103,000,000 | 721,220 | 115,400,000 | 1,500,245 | 240,000,000 |

To the ports of the United States, the past five years, have been as follows:—

| | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|
| New York,..... | 109,971 | 155,711 | 185,388 | 169,048 | 203,537 |
| Baltimore,..... | 88,230 | 148,625 | 127,154 | 117,098 | 229,204 |
| New Orleans,..... | 92,583 | 152,511 | 129,997 | 175,625 | 151,142 |
| Philadelphia,..... | 19,660 | 34,792 | 28,255 | 35,168 | 47,747 |
| Boston,..... | 23,513 | 33,857 | 60,881 | 47,012 | 75,816 |
| Charleston,..... | 9,972 | 5,450 | 11,468 | 2,664 | 7,918 |
| Mobile,..... | ..... | 11,797 | 7,657 | ..... | 5,858 |
| Richmond,..... | ..... | ..... | 2,025 | ..... | ..... |
| Savannah,..... | ..... | ..... | 1,757 | ..... | ..... |
| Total,..... | 343,738 | 543,713 | 554,382 | 546,615 | 721,223 |

The currency of Rio, and of Brazil generally, is in a very vitiated state. The par of exchange, when the silver currency was maintained, was 67½d., and the current rate was usually higher; but for some years past, owing to the introduction of paper and copper, the exchange has fallen, so that its average rate in Rio, in 1840, was 30¾d.

The harbor of Rio is one of the finest in the world. Its entrance is marked by a remarkable hill, in the form of a sugar-loaf, 900 feet in height, close to its west side, while on the opposite side of the bay, at the distance of about 1¼ miles, is the fort of Santa Cruz, on which is a light-house. There is, also, a light-house, having the lantern elevated about 300 feet above the sea level, on *Ilha Raza* (Flat Island,) about 10 miles south from the mouth of the harbor. Ships may enter either by night or day, there being no obstruction or danger of any kind. The water in the bay is sufficient to float the largest ships of war; and it is extensive enough to accommodate all the navies of all countries in the world.*

## Art. IX.—PRODUCTION OF SUGAR IN THE EAST INDIES.

New York, March 20, 1847.

My Dear Sir—By the last steamer, I received from J. Balestier, Esq., the United States Consul at Singapore, in the East Indies, an open letter addressed to a planter in Porto Rico, which appeared to me to possess so much of general interest, that I have taken the liberty to transmit to you a copy of the material parts of it.

Mr. B. has resided in Singapore since the year 1833, and is very intimately acquainted with the commercial and agricultural statistics of the East. The present communication relates to the prospective production of sugar, and embraces a sketch of the present condition of sugar-planting in Java, Cochin China, Siam, &c. With this letter I also send you a commercial article, written by my brother expressly for your valuable Magazine.†

Very respectfully, your obedient servant,

J. N. Balestier.

To Freeman Hunt, Esq.

### EXTRACTS FROM THE LETTER OF J. BALESTIER, ESQ.

What with the reduction in the duties in England and America, and the prevailing spirit in the remainder of Europe, for cheap sugars, the consumption must greatly increase; and as growers of the article are not prepared to supply this unexpected call, it would seem to follow that, for some years to come, prices will rather advance than decline. No part of America, except the United States, is in a condition to add much to the stock now raised.

There is abundance of first-rate soil, but a great scarcity of laborers; and without them the land has but little value. To this quarter—the Eastern hemisphere, abounding in suitable soil and efficient hands—expectation is naturally turned to furnish the increased demand.

* M'Culloch's Universal Gazetteer.

† The article alluded to, relating to the Commerce of Malacca, Singapore, &c., will be found in a former part of the present number of this Magazine.

But there will be found great obstacles in the realization of this expectation, causing great disappointment. This Eastern world, though possessed of unbounded soil and population, is wanting in capital and in enterprising Europeans, without which there can be no considerable addition to sugar production. The natives, left to themselves, are too much wanting in industrious habits, or in ambition of riches, ever to make good a deficiency in so costly and complicated a manufacture as that of sugar. Java, under its system of forced labor, is strained beyond prudence, as is proved by two successive years of famine brought on by turning the industry of that island from rice cultivation—the bread of that country—into other channels, such as indigo, tea, coffee, and sugar. The Philippines, vast and rich in soil, are in the hands of pirates and Indians, and by law or habit, are rendered unapproachable to foreigners beyond the limits of Manilla, the capital; and although there is a yearly development of their productiveness, still they are far from being productive to the extent they would be, were Europeans permitted to establish themselves in the interior, and turn the population to industrious habits by giving them adequate wages for their labor. China produces much sugar; but as their own consumption is great, and as they even import considerable coarse sugar from Cochin China and Siam, it would seem that no considerable surplus could be looked for from that quarter. Cochin China is in the hands of a despot, who reaps what his people are made to plant; they receiving, either in articles of food, clothing, or money, what his majesty is pleased to give them. Everything comes into his granaries for future disposal, and he alone exports, in his own ships, to this port and to Batavia, whatever is marketable—say about 20,000 piculs of ordinary sugar and some coffee. Siam is another of those vast countries where large quantities of sugar might be grown were it not for the cupidity of its sovereign. He of Cochin China, as I have said, obliges his people to sow, to enrich himself with the reaping; whilst his brother of Siam encouraged the immigration of colonies of Chinese into his States, to obtain a revenue from the rich alluvial wastes which his own subjects had not energy and industry to cultivate. The Chinese paid a regular fixed rent for their allotments, and their production of sugar greatly increased. But an unlooked-for purchaser made his appearance. Hitherto, the Chinese had been free to sell their crops to the highest bidder; but now, the king's emissaries demanded the delivery of the sugar at a price fixed by himself, and which, being less than the market value, leaves to his merchant majesty a handsome profit on the sales to foreigners. That proceedings so arbitrary should check the manufacture, is the natural consequence; and Siam, therefore, will not, for the present, lend a helping hand in replenishing the warehouses of the West with sugar.

I have given you a rapid, and, I believe, a correct survey, of the capabilities of the principal sugar lands in the East, to meet the new wants expected to arise from a less burdensome tax upon the consumer.

The time, however, will come—must come—when the world will be amply supplied with this article. British India, and the British possessions in the Straits of Malacca, are in a better condition to become producers on a larger scale than any other region. I have already said, in the first part of this letter, that there is abundance of soil and of laborers, but that capital and adventurers were wanting. This is true, at present; but will it be so long, after the stability of this branch of industry shall be well

established? For many years past, vacillating policies and tariffs have given anything but security to those engaged in the business of growing sugar; and the consequence has been, that capitalists have been unwilling to lend money to carry on or establish an industry universally considered hazardous, except on such onerous conditions, as made the unfortunate borrower a bonded slave for life.

The new policy of governments, which, by the imposition of moderate duties, encourages consumption, gives that stability and security so much wanted, and will lead capital to flow in that channel. That great obstacle removed, adventurers from the West will not be wanting in the plains of over-populated India. Money, obtained at a moderate rate of interest, will enable them to form plantations, and raise and export sugar, cheaper than from any other quarter of the globe, unless these shores, (the Straits of Malacca,) jutting out from India and China, whose population is the densest in the world, should prove an exception.

The shores of the Malaya Peninsula, along the Straits of Malacca, have far greater advantages for the growth of sugar-cane than any portion of British India. The whole extent of country is perfectly healthful to Europeans, Chinese, Indians, or aboriginal Malays. In its whole extent, it is exempt from any of those terrific and destructive atmospheric convulsions, such as hurricanes, typhoons, or even gales; squalls, only, are occasionally experienced. Its surface is diversified by high mountains and rich valleys, and plains almost interminable, all indicating, by the luxuriant fruit which overspreads them, the fertility of the soil. Large navigable rivers, and other water-courses, indent the coast, by which the greatest facility would be had in communicating with the interior. Its mineral wealth, in gold, iron, lead, and particularly in tin, is great.

This peninsula, with upwards of 500 miles of sea-coast, with the exception of the three small settlements, viz.: Singapore, Malacca, and Penang, or Prince of Wales Island, is a waste.

Possessing such eminent advantages, what is not that *waste* capable of becoming, with capital at command, and cheap labor from India and China close at hand? Nothing is wanting, but confidence in the business of raising sugar, to give such an impulse to it within the possessions of the East India Company, as shall fully meet the probable increased wants of the European and American populations.

Receive, then, my friendly congratulations on what appears to me just-founded prospects of good prices, for some years to come; but at the same time make the most of that warning, which the untold millions of vacant cane lands, and the untold millions of the free and efficient hands of India—at an average of two Spanish dollars per month, enduring everything—gives you. Will you be ready to compete with good sugar, the cost of which, to the manufacturers, shall not exceed one penny sterling, or two cents per pound? There are not those wanting—experienced men in the business—who are ready to prove that, with plough and steam for helpmate—that is, with improved implements and skill—sugar, nearly white, can be turned out at two cents per pound. J. B.

## Art. X.—COMMERCIAL CODE OF SPAIN.

NUMBER III.

OF MARITIME TRANSPORTATION—THE BILL OF LADING.

799. The shipper and the captain of the vessel which receives a cargo, cannot refuse to interchange mutually, each with the other, as a title of their respective obligations and rights, a bill of lading, (*un conocimiento,*) in which shall be expressed—

First—The name, registration, and tonnage of the vessel.

Second—The name of the captain and the town of his domicil.

Third—The port of loading and discharge of the vessel.

Fourth—The names of the shipper, (*cargador,*) and also of the consignee, (*consignatario.*)

Fifth—The quality, the quantity, the number of bales, and the marks of the merchandise.

Sixth—The freight, or money for the carriage of the goods, and the primage contracted to be paid.

But the designation of the consignee may be omitted, and the cargo addressed to order.

800. The shipper shall sign a bill of lading, which he shall deliver to the captain.

The captain shall sign so many bills of lading as the shipper may require.

All the bills of lading, as well that which the shipper ought to sign, as those which are required of the captain, shall be of one and the same tenor, and shall bear the same date, and shall express the number of those which have been signed.

801. There being found a disagreement between the bills of lading of one and the same cargo, the contest shall be settled by the contents of the one which the captain may present; the whole being written out in full, or, at least, the part which shall not be printed, in the hand of the shipper, or of a clerk employed in the business of his trade, without amendment or erasure; and as for that which the shipper shall produce, it must be signed in the handwriting of the captain himself.

Should the two bills of lading which are discordant, respectively have this requisite, that shall be the true bill of lading which the parties can prove.

802. Bills of lading, to order, can be transferred by endorsement, and negotiated.

In virtue of the endorsement, are transferred to the person in whose favor they have been made, all the rights and actions of the endorser (*del endorsante*) with respect to the cargo.

803. The legitimate holder of a bill of lading addressed to order, must present it to the captain of the vessel before he shall make a beginning to discharge his cargo, so that the merchandise may be delivered directly to him; and omitting to do so, the expenses which shall be caused in depositing the cargo, and the commission of one-half per cent, to which the depositor shall have a right, shall be on account of the holder of the bill of lading.

804. Whether the bill of lading shall be given to order, or has been drawn up in favor of a particular person, the destination of the merchandise cannot be varied, unless the shipper shall return to the captain all the

bills of lading; and if the captain shall consent to this, he shall be responsible for the cargo to the legitimate holder of the bills of lading.

805. If, for the cause of being mislaid, the exigency provided for in the article preceding cannot be made, security shall be given, to the satisfaction of the captain, for the value of the cargo; and without this requisite, he shall not be obliged to subscribe new bills of lading for a distinct consignment.

806. The captain of a vessel dying, or ceasing in his office by reason of any other accident, before he shall have made sail, the shipper can demand of his successor that he shall invalidate or ratify the bills of lading subscribed by the captain who received the cargo; without this, he shall not be responsible beyond that which shall be proved by the shipper to have existed in the ship, when the successor entered into the exercise of his employment.

The expenses which may occur in retaking an account of the cargo embarked, shall be chargeable to the account of the (*naviero*) ship's husband, without prejudice to any claim which the captain retiring may seek, unless he should cease to be captain in fact, by a fault which has given cause for his removal.

807. The bills of lading, which shall be recognized as legitimate by each one of the signers, shall have an executive force in law.

808. There shall not be admitted to the captains the exception, that they signed the bills of lading confidentially, and under a promise that the cargo, designated in the bills of lading, should be delivered to the captains themselves.

809. All demands between the shipper and the captain, shall necessarily be proved by the bill of lading of the cargo delivered to the latter; and without a presentation of such bill of lading, such demands shall not be admitted in judgment, (*curso.*)

810. In virtue of the bills of lading of the cargo, the provisional receipts of a prior date are held to be cancelled, which may have been given by the captain, or his subalterns, of partial deliveries which shall have been made of the cargo.

811. On making a delivery of the cargo, the bills of lading which have been signed shall be returned to the captain, or, at least, one of the copies, in which shall be inserted the receipts of what he may have delivered.

A consignee, who may be wayward in the surrendering up of this document, or of the bill of lading, shall respond to the captain for the damages which may result by the delay. A. N.

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## Art. XI.—THE LAW OF DEBTOR AND CREDITOR IN MISSISSIPPI:

### AND OF THE PROSECUTION OF ACTIONS IN THAT STATE.

I. Of the courts in which actions may be prosecuted.

These are the Circuit, Chancery, Probate, and Justices' Courts.

1. Of the Chancery Court. This, like the courts of equity of other States, has a general equity jurisdiction over matters of fraud, accident, and trust. It would not be useful for the object of this paper, to state the various local rules which affect the practice and pleadings in this court. These, of course, have been adopted, in reference to the peculiar institutions and habits of the country; and, while modifying the mode of pro-

ceeding in some unimportant particulars, are generally consistent with, and based on well settled principles of English chancery law; so that it will be found that, in most essentials, the statutory enactments are rather declarations than modifications of the law. The statute conferring jurisdiction, enumerates all matters, pleas, and plaints, whatever, belonging to, or cognizable in equity—writs of injunction to stay waste, enjoin judgments, stay proceedings at law, the granting writs of *ne exeat*, and all other remedial writs, certiorari, and bills of review, &c., but no jurisdiction over the subject of wills. If defendants to any suit are out of the State, and persons in it have in their hands effects or lands of, or are indebted to such defendants, and appearance for them be not entered, and security for performing the decree given, the court has power to retain the persons, in possession of the effects or lands, or owing moneys to the non-resident. This provision extends to persons and corporations of the State, against corporations existing abroad, and having real and personal estate in Mississippi. To chancery, is also given authority to entertain bills against the State, on the complainant entering into bond to save the State against costs; but no execution can issue against the property of the State. The answer of a non-resident may be sworn to, before any judge, justice of the peace, notary, mayor, or alderman, of any city, town, or corporation, in any State or Territory of the United States. The certificate is only required to state the fact of the oath, and that the party administering it is the particular officer.

2. The Probate Court has a general ecclesiastical jurisdiction over all matters relating to estates, the granting of letters of administration and testamentary guardianship, and matters connected with the county revenue, roads, bridges, &c.

3. The Justices' Courts are of limited jurisdiction, confined to matters of debt, &c., not exceeding fifty dollars; and also the usual authority over offences, conservations of the peace, &c.

4. The Circuit Court has a general law jurisdiction, under the common law actions of assumpsit, case, covenant, debt, detinue, trespass, ejectment, &c., of all matters involving the recovery of money on bond, bill, promissory note, or other written contract, covenant, or agreement, or open account, where the principal of the sum in controversy exceeds fifty dollars; also, in equity jurisdiction, original and concurrent, over subjects cognizable in equity, where the value of the thing or amount in contest, does not exceed the value of five hundred dollars. The trial of criminals is also entrusted to this court. Civil process is tested in the name of the judge assigned to the circuit, and of the first day of the term next preceding that to which returnable. It is to be executed at least five days before the first day of the term next succeeding its test. Those courts are held twice a year in each county of the State.

II. Of proceedings to enforce the collection of debts.

1. Of the extraordinary remedy by attachment. Attachments may issue against the estate of a debtor, upon the oath of the creditor, his agent, or attorney, that the debtor has removed, or is removing out of the State, or so absconds or privately conceals himself, that the ordinary process of the law cannot be served, and of the amount of the debt, and the grounds of belief, whether, from a knowledge of the fact, personally, or by information, that the alternative ground exists. Ancillary process of garnishment, answering to the trustee process of the Northern States, also issues, to any person indebted to, or having effects of the debtor in hand.

2. Of bail. In actions founded on a specialty, bill, or note, in writing, signed by the party to be charged, or on judgments of foreign or domestic courts, bail may issue, of course; and in actions of account, covenant broken, and actions founded on verbal contracts and assumptions in law, on affidavit of the sum due, or damage sustained, bail may be required by the endorsement of the clerk, or plaintiff's attorney. No citizen can, however, be held to bail, unless an affidavit is made that the defendant is about to leave the country, and that thereby the legal recovery of the debt be prevented.

3. When suit is commenced on any writing, whether under seal or not, the court shall take the same as evidence of the debt, promise, undertaking, or duty; and if the defendant wishes to deny the execution of such writing, he must do so by plea, supported by affidavit.

If two, or more, sign any writing, it is lawful to join any of them in the same action; and all promises, contracts, and liabilities of copartners, are considered joint and several. In actions upon bills of exchange and promissory notes, the drawers and endorsers, living and resident in Mississippi, are to be sued in a joint action, and be brought in the county where the drawers reside.

In this State, the statute of frauds, of 29 Car. 2, is of force; whereby no action can be brought to charge an executor or administrator, upon any special promise, to answer any debt or damage out of his own estate; or to charge one, upon any special promise, to answer for the debt, default, or miscarriage of another; or to charge one, upon any agreement upon consideration of marriage, or for the sale of lands, tenements, or hereditaments, or the making of any lease thereof for a longer term than one year, or any agreement not to be performed within the space of one year, unless the promise or agreement, or some memorandum or note thereof, be in writing, and signed by the person to be charged, or the authorized agent of such person.

Every gift, grant, or conveyance of lands and goods, contrived of malice, fraud, collusion, covin, or guile, with the intent to delay, hinder, or defraud creditors, are void; and conveyances, not on valuable consideration, are considered fraudulent, except by will or deed, duly proved and recorded; and so, any loan of goods and chattels, where the possession remains with the donee three years, without demand made and pursued, on the part of the lender, is also considered fraudulent, as against creditors.

## Art. XII.—MERCANTILE BIOGRAPHY.

### THE LATE ROBERT THOM, BRITISH CONSUL AT NINGPO.

The Glasgow Chronicle, in announcing the death of this eminent merchant, and excellent man, which took place on the 14th of September, 1846, furnishes the following biographical sketch of his career, obtained from an authentic source. Mr. Thom was well known to the American merchants residing in China; and its republication in the pages of this journal, will, we trust, stimulate those engaged in mercantile pursuits, at home or abroad, to imitate his example, and thus add to the dignity of the profession.

"Mr. Robert Thom was born in Glasgow, on the 10th day of August, 1807. He had, therefore, when he died, just completed his 39th year. Having been des-

tined to a mercantile life, he was for a twelvemonth in a respectable office in Glasgow, and afterward served an apprenticeship of five years in Liverpool. During his residence there he first evinced his fondness for literary pursuits. He was a constant correspondent for more than one of the newspapers. In June, 1828, he went to Caraccas, where he spent about three years. He there acquired a complete knowledge of the Spanish language, and was a rather distinguished personage, on account of his amicable discussion with the Roman Catholic priesthood, and the amazing aptitude for general business which he displayed. Afterward he spent about a year and a half in Mexico. Returning to England, he spent the Winter and Spring of 1833 there. In July of that year he went to Bordeaux, in France, and from that place to China—thence, alas! never to return.

Embarking at first in mercantile pursuits, he continued, nevertheless, to devote his leisure moments, and hours stolen from rest, to making himself acquainted with the language and literature of China. He landed in China in February, 1834, and within two years from that period was capable of speaking its language with considerable fluency. In the course of 1837 he was able, in the absence of Messrs. Morrison and Gutzlaff, to plead a cause in the mandarin or court dialect. All this while he was constantly inserting letters and other papers, on interesting topics, in the newspapers then published at Canton. The year 1838 saw him first appear formally as an author, but under the pseudonyme of 'Sloth.' His *brochure* was entitled 'The lasting resentment of Miss Keaon Levan Wang,' being a translation into English of a Chinese tale, with copious notes. Mr. Thom's translation of 'Æsop's Fables into the Chinese language,' appeared early in 1840; and, to dismiss his publications, his 'Chinese and English Vocabulary,' in August, 1843. This, from an eager and unceasing desire to be useful, he published at his own expense, and distributed gratuitously among public bodies and individuals residing at the five ports. Another work occupied his attention at the time of his decease. His productions were highly esteemed on the continent, as well as in this country.

"It was as a public character, however, still more than as a literary one, that Mr. Thom merited and obtained distinction. His valuable assistance rendered to government, while a merchant, is recorded in evidence given before a committee of the House of Commons, in 1841. In June, 1840, he embarked in the government service. Indefatigable were his exertions at Chusan and the neighborhood, during the winter of 1840-41. The cases of Captain Anstruther and Mrs. Noble particularly engaged his sympathies and stimulated his exertions. The Spring of 1841 saw him again on the Canton river, zealous and active, and courageous in his country's cause. His exertions during the siege of Canton, are noticed in Sir Hugh (now Lord) Gough's despatch, gazetted in the following October. He accompanied Sir Hugh over the battle-fields of Amoy and Chinhai, the former fought in August, the latter in October, 1841. At the latter action he was the means of saving the lives of 500 Chinese,—'a circumstance,' writing concerning which he said, 'that gave him more pleasure than if he had been appointed Emperor of China.'

"His civil administration of the city and district of Chinhai, from October, 1841, till May, 1842, is one of the most interesting and brilliant passages in his eventful history. Not only did it obtain for him the approbation of his superiors, but was commented on with applause by the Chinese themselves. Elipoo, when he was introduced to him at Nanking, in August, 1842, addressing him, said: 'La-pih-tan, (Robert Thom,) I thank you for your civil mandarinship at Chinhai—it has gained for you a great name in China.' His exertions, with Mr. Gutzlaff and the late Messrs. Morrison and Lay, at the time of negotiating the Nanking treaty, and his labors in regard to the 'supplementary treaty,' are well known. His view of the trade of China, past and prospective, published among the sessional papers of the House of Commons, for 1844, with all the imperfections necessarily attaching to such a document, is a wonderful monument of knowledge, industry, ratiocination, and power of condensation. It is indeed 'multum in parvo.'

"On the 5th of March, 1844, her Majesty was pleased to testify her sense and approbation of Mr. Thom's services by appointing him her consul at Ningpo, one of the five ports opened to foreign trade, in terms of the treaty.

"Previous to this, however, disease, contracted in his country's service, had made fearful inroads on his constitution, never a very robust one. Fevers, in June, 1841, after the fatigues and exposure attendant on the siege of Canton; in September, 1842, in the Yang-tse-Kiang, after the conclusion of the Nanking treaty; and at Hong-Kong, in the summer of 1843, left behind them effects from which he never perfectly recovered. Dropsical symptoms supervened. With difficulty he could be persuaded to ask for leave of absence. This was at once and kindly granted. Still he could not be persuaded to leave his post until his successor should arrive. He dreaded lest the public service should suffer by his departure. Under such circumstances death overtook him.

"His amiable and affectionate disposition—his anxiety to promote the interests of all and sundry—above all, his devotedness to the service of government, and the throwing of his whole soul into the endeavor to advance the commerce of his country—are facts too notorious to require being dwelt on. Zeal, disinterestedness, activity of mind, general ability, great aptitude for business, firmness and decision, combined with kindness, amazing powers of discrimination, generosity and nobility of mind, and great personal courage, are attributes of his character which will at once and cheerfully be conceded to him by all who had the pleasure of his acquaintance.

"To his exertions in the service of his country he has fallen a victim."

# MERCANTILE LAW CASES.

## SALVAGE.*

To support a claim for salvage, the applicant must give evidence, rendering it reasonably probable that he contributed by his labor, or skill, towards saving or protecting the property.

A person finding property derelict, acquires no right to exclude others from making a salvage of it, unless he keeps by it, and possesses the ability to save it himself. Without this, a claim, as first discoverer of a wreck, avails nothing.

The possession of a *bona fide* salvor cannot be interfered with, when he has, and is using, adequate means to save a wrecked property, until he is decreed a proper compensation, or one is made him by the owner.

Any finder of property derelict, is entitled to become salvor, with the privileges of such, as well against those who have before found, and abandoned or deserted it, as against the true owner.

A manifest possession, and avowal of the object of it, are necessary ingredients in the title of a salvor.

In cases of derelict, the courts rarely give less than one-third, or more than two-thirds of the value of the property saved.

The habit of maritime courts, is to give a moiety. This allowance is, however, varied under peculiar circumstances, at the discretion of the courts.

A moiety given in this case, after deducting the salvors' costs out of the gross amount.

In the United States District Court, before Judge Betts, February 9, 1847. James Curtis and others, *vs.* the schooner John Wurts. Jesse Richards, claimant.

The libel, in this case, was filed, to recover salvage compensation; and contains appropriate allegations to that end, and is substantially supported by the evidence.

After the suit was instituted, Joshua T. Jones and others, owners of the schooner Excelsior, by leave of the court, interposed allegations, claiming a share of such salvage as should be awarded by the court for saving the said vessel.

The material facts in proof, are these:—The John Wurts, owned by the claimant in New Jersey, was wrecked in the gale, on the 8th or 9th of September last,

* The decision of Judge Betts, in this case, was kindly furnished at our request, by that gentleman, for publication in the Merchants' Magazine.—[Ed. Mag.]

a few miles below Sandy Hook, on a voyage from the North River and New York, to her home port, and all on board perished.

The claimant was also owner of most of the cargo. The claimant shortly after employed the schooner Excelsior and other vessels, with a steamboat, to endeavor to save the wreck and cargo. They succeeded in raising her, and towed her several miles towards Sandy Hook, when she escaped from them, and again sunk in ten fathom water—her bows in the sand, and her stern just out of water.

All the expenses of these proceedings were paid by the claimant, except those of the Excelsior.

On the 24th of September, an agreement in writing was entered into, between the claimant and Joshua T. Jones, managing owner of the Excelsior, that he would undertake the salvage of the vessel and cargo, and deliver them near Jersey city, for 50 per cent on the amount saved; and that allowance should also be in full compensation of the services already rendered by his vessel and crew, under the employment of the claimant.

About the 6th or 7th of October, the Excelsior proceeded to the wreck, with apparatus prepared to raise it, and passed a large chain under the stern, but found she had not force enough to move her; the chain was secured around the wreck, and the Excelsior and her crew went back to the city for further assistance. They had been engaged about twelve hours with the wreck.

On the 13th of October, the Excelsior and another vessel started to go to the wreck again, but were driven off by the heavy gale of that date. The wreck is supposed to have been moved by the same gale, as a day or two after she was seen drifting to the eastward, past Fire Island, and was afterwards reported off the east end of Long Island.

After a heavy blow from the eastward, she was again seen driving to the westward, past Fire Island.

The Excelsior, on this intelligence, was sent to Fire Island to look for the wreck, but saw nothing of it, and her owners engaged in another wrecking adventure at the island.

The Excelsior was further despatched to New York Bay, in search of the wreck, but without success. The agent of the claimant repeatedly, after the agreement of September 24th, urged Jones to pursue with promptitude his undertaking to raise the wreck. Jones, at the time of the agreement, declared he should be able to complete the salvage in two days; and ten days, or more, after the agreement, he excused himself, when pressed on the subject, because the weather was then peculiarly fine and favorable, by saying he was engaged in other business, or had arrangements to make before going to the work.

On the 9th of November, the libellants, Curtis and others, fell in with the wreck, grounded on the Great Kill Shoals in Sandy Hook Bay, bottom upwards, filled with water, her bows bilged, her rigging and masts all gone, most of her cargo out, and her bulwarks and stanchions mostly carried away.

Immediate and active exertions were applied to saving her, and, by aid of several small vessels, with chains and other appropriate apparatus, and a steamboat to tow, she was got off the shore and moved towards Amboy, grounding several times before she could be got to Staten Island.

A good deal of difficulty and some danger, was incurred, in keeping her afloat. The weather was thick, cold, and severe; and nearly a fortnight was occupied constantly, by all the libellants and their vessels, before the salvage was accomplished, sometimes the crews being kept at work all night.

They were compelled to float her bottom upwards, and stern foremost, to great disadvantage, and with the hazard of her turning over on the small vessels supporting her, and crushing them.

The ordinary incidents of breaking chains, in securing and moving her, and injury to the vessels engaged, were experienced.

The wreck sold for about $1,300, and the fragments of her cargo remaining with her for about $50.

The case was argued by Mr. Hart for the libellants, by Mr. Burr for Jones and his associates, and by Mr. Mason for the claimant.

Betts, District Judge.—The claim of Jones and owners of the Excelsior to salvage, in this case, cannot be allowed. It lacks the indispensable ingredient of a salvage service—that of having contributed immediately to the preservation or rescue of the wrecked property.

The circumstances in proof, do not demand of the court a decision upon the point, how far a person must be directly employed, aiding the recovery of a wreck, to constitute him a salvor; nor am I disposed to lay down the rule, that he must make it certain the property was saved by his assistance; but I am not aware of any principle which admits him to the favor of a salvor, until it is rendered reasonably probable, upon the evidence, that his labor or skill have contributed towards protecting the wreck from ultimate loss or further damage.

An impression seems to have obtained, that one who finds derelict property under water or afloat, acquires a right to it by discovery, which can be maintained by a kind of *continued claim*, without keeping it in possession, or applying constant exertions for its preservation and rescue.

There is no foundation for such notion. His right results entirely from the fact, that he has in actual possession, or has kept by, what was lost or abandoned by the owner, with the means at command to preserve and save it, and that he is actively employing those means to that end.

The law will then protect him against all interference by others, even the true owner, until he is adequately rewarded, or opportunity is allowed to bring the property to a place of safety, and have his compensation secured him by the judgment of the proper tribunal.

The fact that property is found at sea, or on the coast, without the presence of any one to protect it, gives the finder a right to take it in possession; and the law connects with such right, the obligation to use the means he has at control, and with all reasonable promptitude, to save it for the owner.

He can, therefore, be no otherwise clothed with the character of a salvor, than whilst he is applying himself in occupancy of the property, to its saving.

Notorious possession, with the avowal of the object for which it is taken and kept, are cardinal requisites to the creation or maintenance of the privileges of a salvor; when they do not exist, any person falling in with the wreck, may take it, with all the advantages of a first finder.

This is the clear policy of the law. It rewards, with liberal generosity, a meritorious salvor, but counts first, in the order of his meritorious acts, the prompt use of sufficient means, both in getting at the wreck and abiding with it, until the salvage is completed; the value of his services is enhanced, and their compensation augmented, proportionably to the danger and loss to the salvor accompanying such exertions, and their benefit to the owner.

No one of these cardinal qualities appears in support of the present claim. The most that is proved in favor of the owners of the Excelsior, is, that being in port after having left the wreck, they directed apparatus to be prepared here to aid in raising it. A fortnight or three weeks were consumed, awaiting such preparations, the wreck, in the meantime, being left deserted, with the exception of the Excelsior and crew being once alongside of it for about twelve hours.

Under these circumstances, any one coming to the wreck with sufficient means, and effecting its saving, would have been entitled to the rights of sole salvor.

The claim becomes infinitely weaker, when set up after the wreck had been forced from the place where it grounded, and was driven by the winds and waves, for nearly a month, to and fro upon the ocean and the coasts.

I, accordingly, pronounce against the claim of the owners of the Excelsior, and only refrain imposing costs on them, because of the loss and expense incurred by them, in making their preparations and efforts—amounting to $120, or $130, independent of the time employed by the Excelsior and her crew.

If they have any right to compensation for services rendered prior to the written agreement, it cannot be enforced in this action; and they must look to the owner, personally, or his contract with them.

The right of the other libellants to a reasonable reward, is not denied by the owner; but his answer and proofs seek to establish, that $100, or $200, would

be a full compensation for the time occupied in the service, with the kind of craft used on the occasion.

It is unnecessary to repeat the principles, entering into the determination of a salvage reward; they have been too often discussed and stated in this court, and in the decisions of maritime courts, to leave any important illustration of the doctrines untouched.

There can be no doubt of the rightful authority of the court, to regulate the award of compensation very much at discretion; but all judicial tribunals find fixed rules, when at all applicable to the subject, more useful and satisfactory in operation than mere discretionary authority, however wisely that may be exercised.

Accordingly, maritime courts, when not governed by positive law in this respect, have, by a kind of common concurrence, adopted the usage of allotting from one-third to three-fourths of the salved property, in cases of derelict, to the salvors; varying between these points in regard to the special nature of the services, the peril incurred, value of the property saved, and hazard to vessels engaged in making the salvage; and, instead of ranging with much fluctuation even between those points, the growing disposition to determinate rules, has so far settled upon a moiety as the proper rate of allowance in cases of derelict, that it may almost be termed the habit of courts to give that proportion, when no urgent considerations induce them to deviate from it. That, or any other fixed or estimated amount, would not, in every instance, be an appropriate compensation. It, however, approximates sufficiently near, to command most of the important benefits salvage rewards were designed to secure; comprehending those relating to the general interests of maritime commerce, and a reasonable proportion of the lost property between the owner and him who rescues it.

Courts, accordingly, are disposed to adhere to that method of fixing the reward, unless special circumstances are presented, inducing a departure from it. I think, none such exist in this case; nor, on a careful valuation of the services rendered, with a view to the great probability that little or nothing would be realized from them, and the actual benefit to the owner, should I regard $600, or $700, a disproportionate compensation, to be specifically awarded the libellants for what was performed by them.

I therefore decree in their favor, their costs of suit, first to be paid out of the fund in court, and then that they receive the moiety of the residue, for the salvage services rendered in this case.

Unless the mode of distribution between the libellants is adjusted by agreement amongst themselves, it must be referred to a commissioner, to ascertain and report the proper proportion payable to each, and to each vessel employed in rendering the salvage services.

COLLISION—SHIP NORTHUMBERLAND AND SCHOONER LOUISA.

Admiralty Decision in the United States District Court, March 3d, 1847, before his Honor, Judge Betts. Joseph Hinckley and others, *vs.* the ship Northumberland, John Griswold, claimant. Damages claimed for value of schooner, $6,000.

This was a case of collision between the packet Northumberland and the schooner Louisa, which occurred during a bright moonlight night, off Long Island, Montauk Point bearing N. N. E. distant forty miles, and the nearest land twenty-nine miles. The schooner was deep with coal, and sunk alongside in five minutes—her crew barely saving their lives, and some of them being hauled out of the water after she went down. Both vessels were alleged to have been close hauled—the ship on the starboard, the schooner on the larboard tack. Both were made out on the lee bow of each other, on converging courses, and at the distance of about two miles, and each supposed to be to windward of the other's track, the ship going at the rate probably of five, the schooner at four knots. The schooner held on without altering her course, as did the ship, until within a few of her lengths from the schooner, when she ported her helm and came into the wind, striking the schooner between her fore and main rigging. If the ship had not luffed, she might have cleared the schooner's stern or struck her abaft her beam and near her stern; if kept away, she would have apparently cleared the schooner. The court held, that the ship committed a fault in not keeping away instead of

luffing; but such fault having been induced by the wrongful act of the schooner, in maintaining her course and not giving way in time, affords no ground for the schooner to demand damages or remuneration therefor.

Libel dismissed, with costs to be taxed.

For the libellants, Daniel Lord, Jr., and B. D. Silliman; for the Northumberland, Ogden Hoffman, W. Q. Morton, and O. Hoffman, Jr.

# COMMERCIAL CHRONICLE AND REVIEW.

THE PROMINENT FEATURES OF COMMERCIAL AND FINANCIAL AFFAIRS DURING THE MONTH—TONNAGE EMPLOYED IN FOREIGN TRADE OF EVERY DESCRIPTION, FOR THE LAST TWENTY-SIX YEARS—RATES OF FREIGHT FROM NEW YORK TO LIVERPOOL, 1844 TO 1847—SHIP-BUILDING IN UNITED STATES, FROM 1828 TO 1846—COMPARATIVE RATES OF STERLING BILLS AT NEW YORK AND NEW ORLEANS—EXPORTS OF NEW YORK—BANKS OF NEW YORK—ISSUE OF UNITED STATES TREASURY NOTES—DEPOSITS IN UNITED STATES TREASURY—RATES OF CONTINENTAL BILLS IN LONDON—COMPARATIVE EXCHANGES AT LONDON AND PARIS—BANK OF ENGLAND—EXPORT OF BREADSTUFFS, FROM 1844 TO 1847, ETC. ETC.

THE state of commercial and financial affairs has exhibited many peculiarities during the month. The chief features have been—1st, enhanced imports of goods; 2d, continued large exports of produce at high prices, attended with exorbitant freights and great activity in shipping; 3d, large importations of specie, with low and falling rates of exchange; 4th, the contraction of a loan of $22,000,000 by the federal government; 5th, increasing scarcity and enhanced value of money. All these general features, with the exception of the contraction of a loan by the government, are evidences of extraordinary prosperity of the whole country. It is selling more of its produce at high prices, and more advantageously to the shipping and transportation interests than ever before. There is more foreign capital coming into the country at less outlay of the products of labor than in any year of our national existence. During the wars of Europe, when breadstuffs there were high, and the United States alone had the freedom of the seas, great profits accrued to the country through the operation of its external commerce. The necessities of those times drew, through the aid of sales of agricultural produce and large earnings of ships, large capital from Europe, and that capital was subsequently employed in manufacturing. In 1837–8, large sums were borrowed in Europe and brought into the country, but capital so acquired does not add to the wealth of the country; on the other hand it impoverishes it, inasmuch as it has all to be paid back with its earnings. It is now the case that all the raw products of the country, including cotton, command more of the money capital of Europe, than ever before. It comes not as a loan, to be paid back with interest, but as the actual earnings of agricultural and commercial industry and the reward of enterprise. Not only does that surplus produce, which in former years was without value, because unavailable, become converted into money-capital, but that money-capital is doubled in amount, because of the exigence in demand. England is disgorging her accumulated funds to buy, at great disadvantage, that food of which unavoidable circumstances have deprived her. The shipping of the United States, which for several years had been doing but an unprofitable business, is now more prosperous than ever before. The following table will show the quantity of United States tonnage employed in the foreign and coasting trade for a series of years:—

REGISTERED TONNAGE EMPLOYED IN THE FOREIGN TRADE AND WHALING—THE ENROLLED AND LICENSED EMPLOYED IN COASTING TRADE, FISHERIES, AND STEAMBOATS.

| | Foreign. | Steam. | Whale. | Coasting and canal boats. | Steam. | Cod & Mack'l Fisheries. | Total. |
|---|---|---|---|---|---|---|---|
| 1821 | 593,826 | ..... | 26,070 | ..... | ..... | ..... | ..... |
| 1822 | 582,701 | ..... | 45,449 | ..... | ..... | ..... | ..... |
| 1823 | 600,002 | ..... | 39,918 | ..... | ..... | ..... | ..... |
| 1824 | 636,807 | ..... | 33,165 | ..... | ..... | ..... | ..... |
| 1825 | 665,408 | ..... | 35,379 | ..... | ..... | ..... | ..... |
| 1826 | 696,221 | ..... | 41,757 | ..... | ..... | ..... | ..... |
| 1827 | 701,517 | ..... | 45,653 | 747,962 | 40,197 | 84,278 | 873,437 |
| 1828 | 757,998 | ..... | 54,621 | 878,431 | 39,419 | 74.846 | 992,686 |
| 1829 | 502,858 | ..... | 57,284 | 454,822 | 54,036 | 101,796 | 610,654 |
| 1830 | 537,564 | ..... | 38,911 | 453,926 | 63,052 | 98,322 | 615,300 |
| 1831 | 538,136 | ..... | 82,315 | 575,087 | 68,568 | 107,670 | 751,325 |
| 1832 | 614,121 | ..... | 72,868 | 558,995 | 90,632 | 102,832 | 752,454 |
| 1833 | 648,968 | ..... | 101,158 | 642,892 | 101,306 | 111,924 | 856,122 |
| 1834 | 749,378 | ..... | 108,060 | 661,144 | 122,474 | 117,850 | 901,468 |
| 1835 | 788,181 | ..... | 97,640 | 665,120 | 127,181 | 136 817 | 929,118 |
| 1836 | 753,094 | ..... | 144,680 | 727,921 | 145,102 | 111.304 | 984.327 |
| 1837 | 683,206 | ..... | 127,241 | 803,320 | 153,660 | 129,257 | 1,086,237 |
| 1838 | 702,962 | ..... | 119,029 | 850,473 | 190,032 | 131,942 | 1,173,047 |
| 1839 | 702,399 | ..... | 131,845 | 963,673 | 186,878 | 108,682 | 1,262,233 |
| 1840 | 752,838 | ..... | 136,926 | 978,510 | 198,184 | 104,304 | 1,280,998 |
| 1841 | 788,398 | ..... | 157,405 | 932,725 | 174,342 | 77,873 | 1,184.930 |
| 1842 | 825,746 | ..... | 151,612 | 820,704 | 225,049 | 71,278 | 1,117,031 |
| 1843 | 851.551 | 5,373 | 152,374 | 844,661 | 231,494 | 73,142 | 1,149,297 |
| 1844 | 893,561 | 6,909 | 168,293 | 844,345 | 265.269 | 101,715 | 1,211,319 |
| 1845 | 897,985 | 6,491 | 190,695 | 903,691 | 319,527 | 98,610 | 1,321,828 |
| 1846 | 937,019 | 6,286 | 186,980 | 948,264 | 341,606 | 108,979 | 1,399,270 |

The quantity of registered tonnage in the foreign trade had not increased from 1835 to 1841, but afterwards it increased to some extent through the transfer of enrolled to registered tonnage. The increase of tonnage in the foreign trade, in 1846, was considerable. The rates of freight in January of each year may indicate the earnings of these vessels:—

RATES OF FREIGHT FROM NEW YORK TO LIVERPOOL.

| | Cotton, per lb. | Beef, per 304 lbs. | Grain. | Turpentine, per bbl. | Flour, per bbl. | Tobacco, per hhd. | Heavy Goods, per ton. |
|---|---|---|---|---|---|---|---|
| | d. d. | s.d. s.d. | s.d. s.d. | s.d. s.d. | s.d. s.d. | £. s. d. £. s. d. | £. s. d. £. s. d. |
| 1844... | 5/16 a 1/2 | 4 0a4 6 | . .a. . | 2 3a2 6 | 2 0a2 3 | 1 10 0a1 15 0 | 1 5 0a1 10 0 |
| 1845... | 1/2 a 5/16 | . .a4 0 | . .a. . | 3 0a3 9 | . .a3 0 | 1 10 0a1 15 0 | 1 10 0a1 15 0 |
| 1846... | 1/4 a 7/16 | . .a6 0 | . 8a. . | 2 6a3 3 | 2 0a2 3 | 1 15 0a2 00 0 | 1 5 0a1 7 6 |
| 1847... | 1/4 a 1/2 | 8 0a8 6 | 2 5a2 6 | 6 8a8 8 | 8 0a8 6 | . . . .a. . . . | 4 5 0a4 10 0 |

The quantities of leading articles exported from New York, have been as follows, for January and February:—

| | Corn. bushels. | Wheat. bushels. | Rice. tierces. | Rye. bushels. | Flour. barrels. | Corn-meal. barrels. | Pork. barrels. |
|---|---|---|---|---|---|---|---|
| 1845... | 20,617 | ..... | 1,511 | ..... | 19,704 | 816 | 7,490 |
| 1846... | 313,827 | 55,867 | 3,948 | 41,614 | 110,766 | 590 | 7,834 |
| 1847... | 1,226,362 | 309,651 | 6,552 | 92,605 | 266,138 | 1,234 | 8,736 |

It will be observed that if foreign shipping increased under the low freights, prior to the latter part of 1846, that the exorbitant profits since realized must have given a great impulse to building. In fact, throughout the world, the demand for vessels to transport grain has so much added to the general growth of commerce as to develop a deficient supply of vessels; and France, Belgium, and England have found it necessary to do away with the ancient navigation laws in respect to grain, in order that foreign vessels may supply the wants of freight; and a great

impulse has, as a consequence, been given to ship-building. Perhaps there never was a time when that interest was so well employed, and all connected with it so prosperous. Timber, hemp, wages, and seamen's pay are all higher than they have been for years. The prices of hemp in New York, have been as follows:—

| | October, 1843. | November, 1844. | November, 1846. | March, 1847. |
|---|---|---|---|---|
| Russia, clean.....per ton | $185 a 187 | $170 a 175 | $220 a 225 | $240 a 245 |
| Manilla..... | .... a 150 | 140 a .... | 150 a 155 | 160 a 175 |
| American, dew-rotted..... | 100 a 115 | 76 a 90 | 90 a 100 | 115 a 130 |
| American, water-rotted... | 120 a 180 | 105 a 160 | 150 a 200 | 160 a 210 |

Seamen's wages have advanced from $15 to $18 per month, with small stores. The following is a table of the progress of ship-building, and the disposition of the tonnage in the United States for a series of years:—

| | SHIP-BUILDING IN THE U. STATES.—REGISTERED VESSELS. | | | | | ENROLLED TONNAGE. | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tons built. | Sold to foreigners. | Lost at sea. | Tons condem'd. | Increase. | Built. | Lost. | Condem'd. | Increase. |
| 1828... | 45,716 | 14,677 | 16,960 | 9,802 | 4,276 | 52,658 | 7,102 | 2,007 | 43,548 |
| 1829... | 28,876 | 14,093 | 12,780 | 8,164 | 6,161* | 48,221 | 4,912 | 3,290 | 40,018 |
| 1830... | 21,242 | 10,058 | 12,545 | 9,198 | 10,558* | 36,841 | 5,206 | 2,345 | 29,289 |
| 1831... | 45,720 | 9,750 | 17,446 | 7,288 | 11,236 | 40,241 | 6,361 | 1,571 | 32,308 |
| 1832... | 72,952 | 6,083 | 18,901 | 4,906 | 43,051 | 71,556 | 5,694 | 1,970 | 63,891 |
| 1833... | 72,979 | 2,932 | 11,514 | 3,164 | 55,367 | 88,647 | 3,880 | 2,071 | 82,694 |
| 1834... | 52,622 | 4,725 | 8,817 | 3,402 | 35,677 | 65,707 | 3,097 | 1,727 | 60,882 |
| 1836... | 46,645 | 10,509 | 14,801 | 4,524 | 16,810 | 66,982 | 4,398 | 1,311 | 61,361 |
| 1837... | 42,343 | 9,916 | 18,189 | 5,858 | 8,279 | 80,643 | 6,176 | 2,987 | 71,478 |
| 1838... | 41,859 | 5,385 | 17,440 | 3,446 | 15,586 | 71,275 | 4,165 | 2,043 | 65,067 |
| 1839... | 55,065 | 5,768 | 16,668 | 4,811 | 27,816 | 65,922 | 4,445 | 3,284 | 58,193 |
| 1840... | 56,121 | 13,837 | 22,547 | 5,751 | 13,986 | 62,187 | 8,858 | 4,316 | 49,012 |
| 1841... | 64,302 | 12,713 | 14,321 | 4,246 | 33,020 | 54,591 | 5,346 | 1,445 | 47,795 |
| 1842... | 54,532 | 7,769 | 18,228 | 5,879 | 22,654 | 74,551 | 10,191 | 5,596 | 58,763 |
| 1843... | 27,275 | 8,818 | 15,606 | 4,035 | 1,455* | 36,342 | 7,426 | 2,648 | 25,882 |
| 1844... | 38,921 | 7,227 | 11,191 | 3,869 | 16,633 | 64,616 | 7,082 | 4,107 | 53,426 |
| 1845... | 60,360 | 8,022 | 16,236 | 4,328 | 32,373 | 85,057 | 5,304 | 2,951 | 76,455 |

The year 1843 is for nine months only. From 1841 to 1844, inclusive, the decline in registered tonnage built was very marked. In 1841, there were vessels built here for the Russian and Mexican governments, which increased the tonnage reported in that year. The year 1846 will show a return of building, and also of sales to foreigners far in advance of any former year.

We have thus alluded to the state of the shipping for two reasons. One is, that it accounts for a large demand for capital for those purposes; and the other, that the stimulus so imparted to the construction of vessels will probably so enhance the supply as materially to affect freights, unless the foreign want of vessels may induce large sales of tonnage abroad. The high value that vessels now command is against this operation, however. No country in the world can turn out vessels so well, so promptly, or so cheaply as the United States, and there is no reason why, under judicious management, we should not be ship-builders for the world. The commerce of the world has of late years vastly increased, and with that increase the demand for vessels has progressed; and the sudden extent of that demand, this year, has imparted an impulse to ship-building of which the United States can alone take advantage. England, in the amelioration of her timber duties, has taken steps towards competing with the United States in that particular, but our natural facilities are too great to be injured.

The large transactions in produce, at high prices, for the foreign trade, have also required a much larger amount of capital than is usual in that business;

* Decrease.

and out of those transactions have also grown operations in bills for the importation of specie. The imports into the United States have been much larger than last year, but the excess of exports is much greater; and as a consequence, bills have continued to decline, in the face of the import of some six millions of specie, and the purchases of bills already made will probably raise the import to ten millions. The low and falling prices of bills have induced their purchase for the importation of specie to an extent far beyond the ordinary operation of the bill-houses; and as a consequence they have leant upon bank facilities; that is to say, they have issued their own paper in purchase of the bills, and that paper has been discounted by the banks in preference to other descriptions,—an operation which causes an unusual demand for capital, until the proceeds of the purchased bills return in specie. These operations, however, have not checked the fall in bills, which has been as follows:—

COMPARATIVE RATE OF STERLING BILLS AT NEW YORK AND NEW ORLEANS.

| | *New York.* | | | | *New Orleans.* | | | |
|---|---|---|---|---|---|---|---|---|
| | 1845–46. | | 1846–47. | | 1845–46. | | 1846–47. | |
| | Sterling. | Francs. | Sterling. | Francs. | Sterling. | N. Y. sight. | Sterling. | N. Y. sight. |
| Sept. 1,..... | 9¼a10 | 5.23¾ | 8¾a9 | 5.31¼ | 8¾a10 | ¼ pre. | 7¼a8¼ | ¼ pre. |
| Oct. 1,..... | 9¾a10 | 5.25 | 8¼a9 | 5.30 | 8 a 9 | ¼ dis. | 8¼a8½ | ¼ " |
| Nov. 1,..... | 9 a 9¼ | 5.26¼ | 6¼a7¼ | 5 37½ | 7¼a 8¼ | ½ " | 7¼a8 | ½ dis. |
| Dec. 1,..... | 8 a 8¼ | 5.27½ | 6¼a6¾ | 5.41¼ | 5¾a 6¼ | 1¼ " | 4¾a5 | ¼ " |
| Jan. 1,..... | 8¼a 9 | 5.26¼ | 5 a5¼ | 5.45 | 6 a 7 | 1¼ " | 4 a4¼ | ¼ " |
| Feb. 1,..... | 8¼a 8¾ | 5.28¾ | 5¾a6¼ | 5.40 | 6¼a 6¾ | 1¼ " | 4 a5 | 1 " |
| March 1,..... | 8¼a 8¾ | 5 28¾ | 4¾a5¼ | 5.41¼ | 6¼a 6¾ | 1¼ " | 2¾a3¼ | 1 " |
| " 15,..... | 8¼a 9 | 5.25 | 3¾a4 | ... | 7 a 7¼ | 1 " | 2¾a3¾ | |

Last year a remarkable uniformity in the rates of bills prevailed in New York; but this year, as the season progressed, bills have fallen near 5 per cent here and at New Orleans, and are still falling.

The importations of goods have been larger than last year, and at this period of the year few go into warehouse. They are nearly all cleared for consumption, and as a consequence, cash duties are payable on their arrival. The following is a table of the imports, exports, and duties at the port of New York, for the months of January and February:—

| Year. | Exports. | Imports. | Duties. |
|---|---|---|---|
| 1846,..... | $4,095,151 | $9,990,606 | $2,742,988 |
| 1847,..... | 6,660,415 | 13,478,636 | 2,922,762 |
| Increase,.. | $2,565,264 | $3,488,030 | $179,774 |

Under the operation of the Independent Treasury, this amount of duties has to be transferred from the bank vaults to the custom-house, and simultaneously with the large drain for regular business, the operation of the Treasury Department in issuing its treasury notes, enhances the demand for specie; as thus, by the law of Jan. 27, alluded to in our last number, the Secretary is empowered to raise $22,000,000. As we stated, $5,000,000 was taken, and the remaining $18,000,000 advertised to exchange in 6 per cent treasury notes for specie. Now the law allows either treasury notes or specie to be paid out, at the option of the government creditor. The treasury notes being all convertible at will into a 6 per cent twenty years stock, they are available for that purpose, no matter at what rate of interest they are paid out; and consequently no creditor would re-

fuse them. If, therefore, these $18,000,000 had been paid out to creditors, they would pass from their hands into those of capitalists, by whom they would be funded. The government would have procured its loan, and the immediate operation of the notes would have been that of a currency in liquidating debts. To procure $18,000,000 by a process requiring the specie to be deposited with the treasury, produces an inordinate drain from the banks, in addition to the effect of duties received in specie. Under such circumstances, viz., a double demand upon the institutions for specie on account of the duties, and also on account of the loans, has the effect of greatly reducing the stock held by the banks, notwithstanding the imports of the precious metals. As a natural consequence, the institutions have been inclined to contract their loans at a moment when the demand is greatest, from the three principal causes above enumerated; viz., the activity of shipping, the operations in bills, and the rise in produce. As the season progresses, the arrival of specie will release a large amount of the paper discounted, while remittances of money from the interior, as the Spring opens, will throw large sums into the hands of the city trade; but it is also true that large sums will be required to take up the vast quantities of produce that are crowding the avenues to market, along all the channels of communication with the Atlantic border. The leading features of the New York banks have been as follows:—

BANKS OF NEW YORK.

| | | LOANS. | | | | |
|---|---|---|---|---|---|---|
| | Discounts. | Directors. | Brokers. | Specie. | Circulation. | Deposits. |
| Aug., '44,. | $54,464,928 | $4,326,932 | $3,832,039 | $10,191,974 | $17,091,324 | $28,757,122 |
| Nov., '45,. | 69,164,861 | 4,157,117 | 1,457,858 | 8,884,545 | 21,125,027 | 31,773,991 |
| Feb., '46,. | 66,235,814 | 4,245,766 | 1,096,410 | 8,350,439 | 19,709,784 | 29,523,024 |
| " '47,. | 64,240,213 | 4,672,973 | 893,172 | 9,191,254 | 10,968,765 | 31,830,595 |

The line of discounts is small, and is usually less at this season than in November. The contraction is now mostly on the part of the country banks; the city banks have extended their discounts. Under the action of the Independent Treasury, from November to February, the banks increased the amount of their specie. The amount of specie duties collected at this port, for the month of February, has been $1,496,716; and the importation of specie at this port direct, was $1,235,122, which would leave a diminution of $260,000 in the amount of specie held by the banks; but considerable sums arrived at Boston on New York account. The official returns of March 1st showed the issue of treasury notes to have been as follows:—

UNITED STATES TREASURY NOTES ISSUED TO MARCH 1ST.

| | February 1. | March 1. |
|---|---|---|
| Under acts prior to July, 1846,..... | $367,931 | $361,181 |
| " of " ..... | 4,994,900 | 5,796,600 |
| " of January, 1847,..... | ..... | 2,518,050 |
| Total,..... | $5,362,831 | $8,675,831 |
| Deduct cancelled notes,..... | 987,650 | 842,050 |
| Total,..... | $4,375,181 | $7,833,781 |

The operation of the issues for specie, added to the customs, might have swollen the deposits. The customs receipts for the first quarter, under the new tariff, as compared with last year, were reported officially as follows:—

GROSS REC'TS OF CUSTOMS AT BALTIMORE, CHARLESTON, N. ORLEANS, N. YORK, AND PHILADELPHIA.

| | 1845. | 1846. |
|---|---|---|
| December,..... | $1,996,860 92 | $2,250,911 16 |
| | 1846. | 1847. |
| January,..... | $2,082,276 20 | $2,433,436 68 |
| February,..... | 1,954,681 86 | 2,213,362 30 |
| | $6,033,818 98 | $6,897,710 14 |
| | | 6,033,818 98 |
| Increase,..... | | $863,891 16 |

The above statement is made out from the returns as far as received. The returns from New Orleans for two weeks in January, 1846, are missing. The receipts for the corresponding two weeks in January, 1847, have, of course, been omitted.

The Independent Treasury came into operation on the 1st of January; consequently $4,646,000 were received at the ports named in specie, and the effect on the treasury deposits has been as follows:—

DEPOSITS IN THE UNITED STATES TREASURY.

| Assistant Treasurers. | January 1. | February 1. | March 1. |
|---|---|---|---|
| Boston..... | $202,599 | $38,372 | $179,829 |
| New York..... | 420,775 | 560,072 | 2,263,583 |
| Philadelphia..... | 239,571 | 74,204 | 145,836 |
| New Orleans..... | 46,399 | 52,111 | 44,548 |
| Mints..... | 558,042 | 558,042 | 478,042 |
| Elsewhere..... | 2,776,648 | 2,529,335 | 2,052,184 |
| Total..... | $4,244,035 | $3,812,136 | $5,184,082 |

The increase of specie with the assistant treasurer of New York was rather more than the whole customs for the month, showing the influence of the treasury note issues. Of this amount, $1,500,000 was transferred to Philadelphia for coinage; $533,000 directly to the mint, which, with the amount already there, will make up the million which is the legal limit of deposits at the mint.

The general effect of these circumstances seems to be to enhance the volume of American coin in the country; to extend the specie basis of the currency, and by so doing, although temporary pressure is apparently created, a steadier condition of the markets must ultimately be produced. The position of the Bank of England is such that large sums in coin can be spared by that institution before its strength will be impaired. In our number for January, we gave a table of exchanges on London, down to December 3d, showing such a fall in rates as pointed to an exportation of bullion to the continent. We will bring down those dates sixty days later, as follows:—

RATES OF CONTINENTAL BILLS IN LONDON.

| | Amsterdam. | Antwerp. | Hamburgh. | Paris. | Vienna. | Silver. |
|---|---|---|---|---|---|---|
| June 4..... | 12.6 | 26.7½ | 13.13½ | 26.00 | 10.9 | 4.11 |
| September 4..... | 12 5 | 26.10 | 13.13 | 26.00 | 10.10½ | 4.11⅛ |
| October 9..... | 12.7 | 26.10 | 13.13 | 25.85 | 10.9 | 4.11⅛ |
| 23..... | 12.6 | 26.5 | 13.12½ | 25.72½ | 10.7 | 4.11⅛ |
| 30..... | 12.5 | 25.97½ | 13.12½ | 25.70 | 10.7½ | ..... |
| November 6..... | 12.4½ | 26.0 | 13.11½ | 25.65 | 10.8 | ..... |
| 13..... | 12.1 | 25 95 | 13 11½ | 25.65 | 10.6½ | 5.00 |
| 19..... | 12.1 | 25.90 | 13.11½ | 25.62½ | 10 6 | 5.00⅛ |
| December 3..... | 12.1 | 25 85 | 13.11½ | 25.57½ | 10.5½ | 5 00⅛ |
| 11..... | 12.0½ | 25.85 | 13.10½ | 25.55 | 10.4 | 5.00⅛ |
| January 8..... | 12.0½ | 25.80 | 13.9¾ | 25.50 | 10.4 | ..... |
| 22..... | 11.19½ | 25.67½ | 13.7½ | 25.30 | 10.1 | ..... |
| 29..... | 12.0 | 25.70 | 13.7½ | 25.35 | 10.2 | 5.00⅛ |
| February 3..... | 12.0½ | 25.75 | 13.8½ | 25.35 | 10.2 | 5.00⅛ |

This was a great and continued fall, and the market closed with an abundance of bills offering. The comparative exchange with Paris, was as follows:—

COMPARATIVE EXCHANGES AT LONDON AND PARIS.

| | London. Mint price of gold. | Paris. Gold per mille. | Resulting exchange. | Actual price of bills in Paris on London. | Gold dearer at London. | Gold dearer at Paris. | Gold dearer at Hamburg. |
|---|---|---|---|---|---|---|---|
| October 9..... | 77.10½ | 16 | 25.55 | 25.77½ | 0.87½ | .... | .... |
| 23..... | 77.10½ | 16 | 25.55 | 25.70 | 0.58 | .... | .... |
| November 6..... | 77.10½ | 16 | 25.55 | 25.65 | 0.39 | .... | .... |
| 16..... | 77.10½ | 15½ | 25.54 | 25.60 | 0.23 | .... | .... |
| December 3..... | 77.10½ | 16 | 25.55 | 25.57½ | par. | .... | .... |
| 11..... | 77.10½ | 15 | 25.52 | 25.55 | 0.12½ | .... | 0.17 |
| January 8..... | 77.10½ | 14 | 25.50 | 25.45 | .... | 0.20 | 1.17 |
| 15..... | 77.10½ | 10 | 25.40 | 25.50 | 0.39 | .... | 1.05 |
| 22..... | 77.10½ | 11 | 25.42 | 25.35 | .... | 0.28 | 1.50 |
| 29..... | 77.10½ | 10 | 25.40 | 25.27½ | .... | 0.49 | 1.76 |

In October, gold was, it appears, eighty-seven-hundredths dearer in London than in Paris; and at the close of January was near a half per cent dearer in Paris than in London. In the first week in January, the rates fluctuated considerably under the export of silver from the Bank of England to the Bank of France. The premium on gold declined rapidly in Paris. The effect of this state of the exchanges had not yet been apparent on the bullion in the bank; the returns of which, brought down from our table in the December number, are as follows:—

BANK OF ENGLAND.

| | Securities. Public. | Securities. Private. | Deposits. Public. | Deposits. Private. | Nett circulation. | Notes on hand. | Bullion. |
|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ |
| Dec. 5 | 12,807,417 | 13,853,212 | 8,612,488 | 8,303,523 | 19,866,805 | 8,402,300 | 15,002,873 |
| Jan. 2 | 12,826,362 | 15,071,820 | 9,990,624 | 7,903,959 | 20,031,185 | 8,227,085 | 14,951,572 |
| 9 | 12,757,326 | 14,464,948 | 5,860,631 | 9,784,767 | 20,836,845 | 6,715,255 | 14,308,022 |
| 16 | 12,757,326 | 14,450,711 | 5,034,189 | 10,339,726 | 20,679,370 | 6,545,965 | 13,948,681 |
| 23 | 12,757,326 | 14,489,657 | 4,668,489 | 10,335,835 | 20,608,090 | 6,167,170 | 13,442,880 |

The reduction in bullion is about £1,500,000 only, including the £1,000,000 in silver, and the gold shipped to Russia and the United States. It is observable that, notwithstanding that the bullion was, on December 5, £1,500,000 more in bank, the circulation out was near £1,000,000 less; a result produced by a diminution of £2,200,000 in the notes on hand paid out for dividends, which payments amounted, it appears by the diminution in the public deposits, to £5,300,000, from the 2d to the 23d January. It follows that the bank must lose £6,000,000 of specie by exportation, before the amount of currency as furnished by it is affected. It appears that so far from contracting its time of discounts, that the private securities which it held were £600,000 more on January 23d, than December 5th, when it had £1,500,000 more specie. The principal drain which it will feel will be on American account. The import into this country cannot be large before it produces its own cure; but for the action of the Independent Treasury, the expansion of the banks would, as is usually the case, at such times, have produced such a speculation and rise in prices, as would already have given a great impulse to the import of goods, and checked that of specie. Under the present system of finance, it will require a larger sum to produce that result.

# MERCANTILE MISCELLANIES.

## THE POETRY OF FREE TRADE.

TO THE EDITOR OF THE MERCHANTS' MAGAZINE AND COMMERCIAL REVIEW.

DEAR SIR:—You will confer a favor on an old subscriber by transferring to the pages of your valuable Magazine the enclosed lines, which originally appeared in the "St. Louis Union," although I believe they were written by an American gentleman, now residing in France. I am not competent to speak of their poetic merit, but they express sentiments in harmony with the spirit of the age, and in accordance with that Gospel which teaches us "to do to others as we would have others do unto us." "Free Trade" is one step towards the development of the great doctrine of "human brotherhood," to be found in the teachings of Him "who spake as never man spake"—a doctrine which all his followers, Catholic and Protestant, profess to adopt. Whatever latitude you may give to correspondents in discussing the "principles of protection" in the pages of your Magazine, I feel quite sure that you entertain the most liberal and enlightened views on the subject. The very fact of your opening the pages of your journal to the free discussion of "mooted points," is, to my mind, conclusive evidence, that on comparing notes, we should not materially differ as to the wisdom and rectitude of entire and absolute free trade with all nations.

Very respectfully yours, &c., CORDEN.

### FREE TRADE.

Oh! Time! thou laborer in the human field,
To whose rude scythe all mortal things must yield;
Cutting off beauty in the proudest hour,
Depriving strength of all his vaunted power—
Among thy many doings, thou, of late,
Hast done at least "some service to the State;"
Mowing Protection down, while Free Trade stands,
The harbinger of good to distant lands;
And radiant memory paints, in colors warm,
The last great deed in politics—Reform.
Commercial liberty!—a magic sound—
A plant first watered, e'en on British ground;
And they who set it there already see
The sheltering branches of a healthy tree
Equal protection give to all who seek
Their bounteous shade—the powerful or weak.

To you—great league and leaguers!—unto you
Will grateful commerce pay a tribute due;
While many foreign lands your worth proclaim,
And your example make their highest aim.

See Russia, thawing in its icy clime,
Adopt the leading spirit of the time,
Loosing the shackles that her trade restrained,
And making millions thrive where ruin reigned.

Even an autocrat can understand
This is the cherished welfare of his land—
The brightest boon for tillers of the soil,
An ample market for their ceaseless toil.

And now Columbia, o'er the trackless seas,
Unfurls her spangled banner to the breeze;
Rejects the trammels of her former laws,
Gains good effect by giving better cause.

Her boundless fields send forth the yellow grain,
The useful cotton spreads o'er many a plain:
The former gives the British weaver food,
The latter keeps his occupation good;
And now the product of his loom is worn
Upon the soil that furnished him with corn.
Free Trade, more strong than diplomatic art,
Unites two nations, though so wide apart:
Gives greater lustre than a hundred wars,
While smiling Ceres conquers frowning Mars.

Italia, too, that sunny southern clime,
To Free Trade's merry peal now adds her chime;
Making harmonious as her own sweet tongue,
The jarring chords of commerce, long unstrung.

Lo! France, awakening at the eleventh hour,
Begins to own commercial freedom's power.
In her gay capital behold a few,
Spurning old notions, now adopt the new.
They meet to honor him who long has been
First in the field, a nobler leader seen,
A peaceful conqueror—lo! a Cobden comes,
No clanging trumpets, nor loud sounding drums,
Proclaim his welcome to the little band,
Who see with pride the stranger in their land.
They hail no "hero of a hundred fights,"
But greet the champion of a thousand rights.

Oh! Liberty—the captive well may sigh
With thee to live; without thee, wish to die.
So fettered Commerce, striving to be free,
Will pine and die, or gain its liberty.

F. L. H.

## THE MERCANTILE CLASSES, OR GRADES.

"A Sermon of Merchants, preached at the Melodeon, on Sunday, November 22d, 1846, by THEODORE PARKER, Minister of the Twenty-Eighth Congregational Church in Boston," has just been published by request. The text, or rather motto, as it has very little to do with the character of the discourse, from Ecclesiasticus xxvii. 2, "*As a nail sticketh fast between the joinings of the stones, so doth sin stick close between buying and selling*," tells a truth, which scarcely loses any of its force, although derived from a portion of the Bible that has been rejected by orthodox authority, as forming no part or parcel of the inspired writings. Mr. Parker points out, in his usual manly, candid, and forcible manner, what he conceives to be the POSITION, TEMPTATIONS, OPPORTUNITIES, INFLUENCE, and DUTY, of MERCHANTS. He distributes men into four classes. 1. The men who create new material for human use, either by digging it out of mines and quarries, fishing it out of the sea, or raising it out of the land, as Producers. 2. Men who transform this material into other shapes, fitting it for human use; men that make grain into flour and bread, cotton into cloth, iron into needles or knives, and the like. These indirect producers are classed as Manufacturers. 3. The third class, who simply use these things when thus produced and manufactured, are the Consumers. We come now to the fourth class, the Merchants, who are described by Mr. Parker, as—

"Men who buy and sell; who buy to sell, and sell to buy the more. They fetch and carry between the other classes. These are Distributors; they are the MERCHANTS. Under this name I include the whole class who live by buying and selling, and not merely those conventionally called Merchants to distinguish them from small dealers. This term comprises traders behind counters and traders behind desks; traders neither behind counters nor desks.

"There are various grades of Merchants. They might be classed and symbolized according as they use a Basket, a Wheelbarrow, a Cart, a Stall, a Booth, a Shop, a Ware-

house, Counting-room, or Bank. Still all are the same thing—men who live by buying and selling. A Ship is only a large Basket, a Warehouse a costly Stall. Your Pedler is a small Merchant going round from house to house with his Basket, to mediate between persons; your Merchant only a great Pedler sending round from land to land with his Ships, to mediate between nations. The Israelitish woman who sits behind a bench in her stall on the Rialto at Venice, changing gold into silver and copper, or loaning money to him who leaves hat, coat, and other *collaterals* in pledge, is a small Banker. The Israelitish man who sits at Frankfort-on-the-Maine, changes drafts into specie, and lends millions to men who leave in pledge a mortgage on the States of the Church, Austria, or Russia, is a Pawnbroker and Money-changer on a large scale. By this arithmetic, for present convenience, all grades of Merchants are reduced to one denomination—men who live by buying and selling.

"All these four classes run into one another. The same man may belong to all at the same time. All are needed. At home, a Merchant is a mediator to go between the Producer and the Manufacturer—between both and the Consumer. On a large scale, he is the mediator who goes between continents—between producing and manufacturing States—between both and consuming countries. The calling is founded in the state of Society, as that is a compromise between Man's permanent nature and transient condition. So long as there are Producers and Consumers, there must be Distributors. The value of the calling depends on its importance; its usefulness is the measure of its respectability. The most useful calling must be the noblest. If it is difficult, demanding great ability and self-sacrifice, it is yet more noble. A useless calling is disgraceful; one that injures mankind—infamous. Tried by this standard, the Producers seem nobler than the Distributors; they than the mere Consumers. This may not be the popular judgment now, but must one day become so, for Mankind is slowly learning to judge by the natural Law published by Jesus—that he who would be greatest of all, must be most effectively the Servant of all.

"There are some who do not seem to belong to any of the active classes, who are yet Producers, Manufacturers, and Distributors, by their Head more than their Hand; men who have fertile Heads; Producers, Manufacturers, and Distributors of Thought; active in the most creative way. Here, however, the common rule is inverted: the Producers are few—men of Genius; the Manufacturers many—men of Talent; the Distributors—men of Tact; men who remember, and talk with tongue or pen. Their name is legion."

## THE BRITISH TOBACCO WAREHOUSE AT LIVERPOOL.

A writer in Chambers' (Edinburgh) Journal, gives a very interesting description of Her Majesty's Tobacco Warehouse, connected with the customs, which he describes as equal to the tobacco depot in London, one of the largest storehouses in the world. This "commercial wonder" gives a very comprehensive notion of what John Bull habitually puffs into the atmosphere. The account will interest the commercial reader, and we therefore transfer it to the pages of the Merchants' Magazine without abridgement.

"Entering by a dingy court-yard adjoining the Queen's Docks, I was conducted into this Liverpool tobacco warehouse. The first sensation on entering, is that of an intense acrid odor, which affects not only the nostrils, but the breathing, for the atmosphere is loaded with tobacco effluvia. Somewhat inconvenienced by this feeling, we pass up an aisle or interval between rows of casks, and find ourselves in the centre of the vast apartment. The light, which is admitted by the roof, reveals hogsheads on hogsheads of tobacco, piled up on every side, leaving passages between for the operations of the attendants. The length of the building is five hundred and seventy-five feet, and its breadth two hundred and fifty; the roof being supported on small but strong cast-iron pillars, so as to afford the largest possible accommodation in the space. Great as is this enclosure, it has latterly been found too circumscribed for the storing of the large quantities of tobacco imported into Liverpool, and several additions to the building have recently been made. There is not a particle of architectural ornament about the structure. The exterior shows nothing but a dead wall; one side forms a wall to the dock, and the other is separated from the Mersey by a pleasant parade. Indeed, the whole building is nothing but a mighty shed, round which custom-house regulations have thrown an air of isolation.

"All the tobacco which comes to the port of Liverpool must, except in special cases, be warehoused in this building. It is here examined by the owner or importers, who select that which is good, and on which they deem it profitable to pay the duty of three shillings per pound. That which is rejected is cast aside and burned. The hogsheads which contain the tobacco are roughly and widely made, but they are very firm and strong,

and each contains about twelve or fourteen hundred weight. When one is to be examined, it is brought from a heap, and set upright on the ground. The fastening of the staves at the lower part is unloosed, and the wood-work is then lifted bodily up, leaving the tobacco exposed as a large compact cylindrical mass. A workman then digs into it with an iron crow-bar, and large pieces, like cakes, are removed. These are examined, and a judgment pronounced on their quality. A portion is pulled out as a sample, wrapped neatly up, and marked with certain cabalistic figures known to the initiated. The whole is then firmly pressed together again, and in a few minutes it is placed in the cask, hooped, and removed. Every piece of tobacco that leaves this warehouse must pay duty; and even the samples thus selected, small though they be, are charged, though, if they are again brought back, the amount is returned.

"Nearly all the tobacco stored here is from the United States of America, but principally from the State of Virginia. It is all in an unmanufactured state, consisting of the light brown leaves rolled together and compressed. The warehouse contains the largest quantity towards the beginning of winter, or just after time has been given for the autumn leaves to be gathered, dried, and sent across the Atlantic. On the day of my visit, it was calculated that about twenty thousand casks were in the warehouse; and if we suppose each of them to contain, on an average, twelve hundred weight, we have an aggregate of twenty-six millions eight hundred and eighty thousand pounds of tobacco, realizing a revenue to government of nearly four million pounds sterling. Although this, however, must have been the accumulated stock, the *yearly* quantity entered for home consumption in 1842, was 22,309,360 lbs.; increased to this amount from 8,000,000 lbs. imported in 1798. The duty received in the former years was £3,580,164. The ideas called up by such a mass of tobacco are perfectly staggering. If the material ministered to the necessities of man, the sight of so many millions of pounds would be quite cheering. But to think that the tobacco, piled in such enormous quantities here, is all to vanish in smoke through the medium of the mouths of enlightened Britons, quite overpowers the imagination, and completely baffles the grasp of common sense. The idea of a nation like the British, which is now doing such wonderful work for all humanity and all time, gravely, and as a matter of course, puffing out in smoke, or inhaling in dust every year, more than twenty-two million pounds' weight of tobacco, and finding ways and means to pay between three and four million pounds sterling for the privilege to do so, is really, to say the least of it, very humbling to the pride of the nineteenth century. And yet this is not all. I have merely indicated the quantity on which duty is paid; but Mr. M'Culloch calculates that one-third of what is consumed in Great Britain is supplied by the smuggler; which will give, as the grand annual total, about thirty-three million and a half pounds' weight! This is only about a sixteenth part less than the quantity we require every year for home consumption of the more innocent and amiable luxury, tea. Tobacco may, as Arthur Cayley, in his Life of Sir Walter Raleigh, says, be

> 'Poison that cures; a vapor that affords
> Content more solid than the smile of lords;
> Rest to the weary; to the hungry food;
> The last kind refuge of the wise and good.'

But all the imagination and fancy, wit and humor of poets, will not bate one jot of our sadness at the mighty monument of human frailty exhibited in these great receptacles.

"About the centre of the warehouse is built a large furnace, which was crackling and roaring most lustily on the day of my visit, while hot gleams shot out from chinks in the massive iron doors, giving evidence of the fearful fire within. In every establishment there is always something known by a jocular nickname, and the standing joke about this furnace is to call it "Queen Victoria's Tobacco Pipe." All the rejected tobacco is burned in this right royal tobacco pipe. Fortunately for the citizens of Liverpool, the tobacco warehouse is at a considerable distance from all dwelling-houses, otherwise the strong fumes arising from the furnace-chimney would prove anything but conducive to health. Behind the furnace is a large circular recess, in which the tobacco ashes are piled up to the extent of several cart-loads. They are found useful in many chemical preparations, and being of a silicious nature, form a good dentifrice.

"At one end of the warehouse there is a division called the Cigar Room. This contains myriads of cigars, neatly and firmly packed in convenient cases. None of these are of course allowed to be taken away without the payment of duty, though, in cases where they are required for ships' stores or exportation, a drawback, or repayment of the duty, to the extent of 2*s.* 7½*d.* per pound, is made. Besides the foreign cigars, a vast quantity are made at home; but it is clearly understood, from the *exposes* that have been made from time to time in the London newspapers, that many of the latter are of British growth as well as British manufacture. Not only are dried cabbage leaves, and other materials of

the kind, liberally used for the purpose, but in a recent case inquired into by the Lord Mayor at the mansion-house, it was shown that some cigars are entirely composed of *brown paper*. In this cigar room there are also large, heavy packages of the finer sorts of tobacco known by the name of 'Cavendish,' 'Negrohead,' 'Honey-dew,' &c. This finer sort is obtained from those parts of America where the climate is warmer than in Virginia. Here also are piled numerous packages of a cubical form, one foot thick, containing South American tobacco, the covering consisting of cattle skins, apparently dried in the sun, and stitched firmly together. They were lying round in great numbers, and resembled a mighty pile of brown and variegated hairy trunks. It is curious, indeed, to find here, wrapping tobacco, the skin of some noble animal that may have ranged freely over South American plains, until the desire to 'turn an honest penny' by the sale of its hide, tempted a hunter to ensnare it with the fatal lasso. Several of these packages, which had been slightly damaged by the salt water, had been opened, and, as I understood, were considered not good enough for the smokers of this country, and were to be exported to Africa for the use of the negroes. In the same room, some men were engaged in chopping off the hard woody fibres of the canes, on which the owners would not pay duty. These fragments are all gathered together, and, on the principle that all is valueless which pays no duty, are cast into the fire.

"The utmost attention is paid to accuracy in weighing the tobacco previous to charging it with duty. Scales which weigh about twelve or fourteen hundred weight at a time, are used; and after the workmen have steadily adjusted the pile in one of the scales, they all withdraw. A circle is formed, within which none but the proper officers are allowed to enter; and when they have ascertained the weight, a signal is given, the spell is dissolved, and the pile is removed. The celerity with which the workmen fix it again in its covering, is surprising. The staves, which seem as if they were kept from falling to pieces only by a slight attachment to one of the ends, are lifted up in a mass, and brought down, covering the material. A rope is slipped round the lower part, to keep them together, the hoops are rapidly fixed on, and the hogshead tilted up and placed under a powerful screw, which compresses the tobacco firmly down, previous to the fastening of the other end.

"In the dock adjoining the warehouse the tobacco vessels are generally moored; and the hogsheads carted in a few minutes from the ship's side into the safe-keeping of Her Majesty's revenue officers. The warehouse is the property of the corporation of Liverpool, which receives from government an annual rent for it of £4,364 5s.

"It may truly be said that this tobacco warehouse is a 'commercial wonder.' It is wonderful to think that all this mighty store, springing from the soil of the new world, is soon to be cast forth into our atmosphere in clouds of smoke from meerschaum, cigar, and 'dudeen;' and still more wonderful to think of the dreamy visions and cloudy air-castles, and damaged health and mean habits, to which all this smoking must give rise. It is indeed a moral wonder, which men ought to contemplate with sad and serious feelings."

## COMMERCE OF THE BRITISH COLONIES.

The colonial possessions of Great Britain, which have been acquired by conquest, cession, purchase, or colonization, while they circumscribe the earth with a chain of subjected provinces, constitute, probably, the most extraordinary political spectacle of the present age. In those colonies, scattered through the four quarters of the globe, the supreme government has established British laws; it preserves their social order through the agency of military force, composed of royal and colonial troops, and has introduced a European system of education, commerce, and religion. Some of those colonies have been far from constituting sources of wealth, their expenses exceeding their revenues; yet, from causes connected with the protection of its maritime ascendency—as profitable markets for its products, or for other purposes—they have been fortified and sustained, as possessions which are to be maintained and protected.

Let us briefly enumerate those colonial establishments. Commencing with the West Indies, we find the British government in possession of Jamaica, Trinidad, and Tobago, Grenada, St. Vincent, and Barbadoes, Antigua, Dominica, St. Lucia, St. Christopher, Montserrat, Nevis, Tortola, and the Virgin Isles, New Providence, the Bahamas, and the Bermudas, to which are added Demerara, Essequibo, Berbice, Honduras, and the Falkland Islands. It is probably well known, that a large proportion of the staple arti-

cles of sugar, rum, and molasses, which supplies the markets of the world, is derived from those colonies; and in return, they doubtless afford an extensive field of consumption for various species of British products. In North America, it holds the colonies of Upper and Lower Canada, Nova Scotia, Cape Breton, Prince Edward Island, Newfoundland, Labrador, and the Hudson Bay Territory.

If we direct our attention to Asia, we find the government of Great Britain in possession of the vast empire of India, exporting from its colonies the gold, gems, silk, ivory, and spices of Hindostan, Ceylon, Penang, Malacca, and Singapore, and exercising a pacific jurisdiction over them by the exercise of policy or military force. In Australasia, it holds the colonial establishments of New South Wales, Van Dieman's Island, Swan River, and Southern Australia. From its colonies in Africa—the Cape of Good Hope, Mauritius, and Seychelles, St. Helena, Ascension, Sierra Leone, the Gambia, Acora, Cape Coast Castle, and a few minor colonial establishments—it receives ivory, gold, and other products. Besides those, are its European colonial possessions—Gibraltar, Malta, and Gozo, Corfu, Cephalonia, Santa Maura, Ithaca, Zante, Paxo, Cerigo, and Heligoland. Those several colonies occupy an area of 2,119,708 square miles, with a total population of 107,708,323. Their total exports and imports amount to the value of £55,533,500 sterling; and they possess a shipping, which has grown to the tonnage of 7,514,585 tons.

## TRADE AND COMMERCE OF NEW YORK, IN 1691.

To Freeman Hunt, Esq., *Editor of the Merchants' Magazine*:—

Among the papers which I have collected, pertaining to the history of New York, when a colony, is a curious petition from the then merchants of the city of New York, to the colonial legislature. Compare New York, as it now is, with what it then was—its trade and commerce then, with now.

Wall-street, in 1691, was the outside of the city on the north. This street was then called "*Cingal-street.*"

Broadway, in 1691, was known by the name of "Broad Wagon Way."

Yours, &c., E. Meriam.

To the Honorable their majesties Commander-in-chief and their majesties Councel of The Province of New York. The petition of the merchants of the city of New York whose names are subscribed.

That by the navigation and traffic of New York, (allmost) the whole revenue for the support and maintainance of their majesties government of this province, doth arise and grow, and altogether depend upon the same.

That by the importation of European goods from Boston and other places, the money, Bullion, Furs, and other returns, are drawn away from hence; whereby the merchants are disabled to send for goods directly from England, and by that means our number of shipping being decreased, our seamen diminished, and our trade discouraged; our provisions and other produces of the country, will lie upon our hands for want of exportation, and our neighbours will be able, in a short time, not only to set their own price upon whatever goods they bring to us, but also upon such goods of our own production as they transport from us.

That the exportation of wheat to any of the neighbouring colonies, is a great detriment to this city and province, and the impoverishing and destruction of numbers of people, *viz.*: Boatmen, Millers, Bakers, &c., who otherwise get a livelyhood, and maintain their families out of the same. That the exportation of whale *oyl* taken and made in this province, otherwise than from this city, is manifestly hurtful to trade, and a general inconvenience to this city and province, our neighbours thereby reaping all the profit and gain of the labour, hazard, and industry of the people of this government.

They therefore pray, that the premis may be taken into consideration.

| | |
|---|---|
| Rip Van Dam, | Stephen Delancey, |
| Christopher Gore, | Richard Jones, |
| James Mills, | Thos. Newhan, |
| Charles Lodwick, | A. Depeyster, |
| Samuel Brent, | John Barbane. |

## COMMERCE OF SINGAPORE.*

We have now before us, a copy of "The Singapore Free Press and Mercantile Advertiser," of the 30th July, 1846, and also a "Price Current" from that place, of the same date. No duties are required to be paid in that port, either upon imports or exports, nor are any charges demanded upon the vessels of foreign nations. The accounts are there kept in Spanish dollars and cents. The usual credits upon sales of European goods, are three months; upon those of India and China, two months; and produce is generally purchased for money. The ordinary weight, is the picul of 133⅓ pounds. Salt and rice are sold by the "coyan" of 40 piculs; Java tobacco, by the "corge" of 40 baskets; Bengal rice, wheat, and grain, by the bag, containing 2 Bengal "maunds;" Indian piece goods, by the "corge" of 20 piculs; gold and silver thread, by the "catty" of $36 weight; and gold dust, by the "bunkal," which weighs $2. Of the nature of the trade with China, we subjoin the following advertisement, for which we are indebted to the Journal that we have before mentioned:—

"Just received, ex 'Mischief,' from China, ladies' gold and silver card-cases of curious workmanship; gold and silver fans, with ivory faces; ivory junks and boats, richly carved; ivory castles; ivory chessmen of sorts; mother-of-pearl fish counters; mother-of-pearl and ivory puzzles, &c."

From the "Singapore Price Current," we have also the record of the amount of shipping in the harbor, as well as the number of arrivals and departures from its port, from the 22d to the 29th of July. From this document, it appears, that during that period there arrived in the port of Singapore 3 Dutch vessels, 7 British vessels, and 1 steamship of that nation, as well as 1 American vessel, all from the several ports of Batavia, Rio, Bombay, Penang, Palembang, Borneo, China, and New York. During the period intervening between the 25th and 29th of July, there were 9 British and 1 Spanish vessel which left that port for the several ports of Macao and Amoy, Penang, Hong Kong, Maulmein, Malacca, Pedier coast, and Manilla. The following table, showing the shipping in the harbor of Singapore, on the 30th of July last, is doubtless accurate:—

SHIPPING IN THE HARBOR.

| Vessels' names. | Tons. | Commanders. | Consignees. | Destination. |
|---|---|---|---|---|
| H. C. steamer Spiteful..... | .... | Maitland. | ..... | ..... |
| Hamburg schooner Hebe.... | 100 | Hullock. | Behn, Meyer & Co. | Penang. |
| Belgian bark Schelde..... | 300 | Clayes. | Behn, Meyer & Co. | China. |
| Bremen bark Anna..... | 500 | Wessels. | Behn, Meyer & Co. | Batavia. |
| B. bark Prince Albert..... | 232 | Keld. | Almeida & Sons. | Mauritius. |
| B. brig Richard & William.. | 163 | Brigstock. | Maclaine, Fraser & Co. | ..... |
| D. brig Tartar..... | 220 | Simpie. | W. C. Leisk. | Batavia. |
| D. schooner Swallow..... | 60 | Scott. | W. C. Leisk. | For Sale. |
| B. bark Bowling..... | 253 | Gentle. | Hamilton, Gray & Co. | Liverpool. |
| B. bark Royal Albert..... | 407 | Balderston. | Martin, Dyce & Co. | ..... |
| American ship Huntress.... | 600 | Gillespie. | Boustead, Schwabe & Co. | Whampoa. |
| B. schooner Julia..... | .... | Cushing. | W. R. Paterson & Co. | Sarawak. |
| B. bark Boadicea..... | 421 | Warland. | Shaw, Whitehead & Co. | Batavia. |
| Arab ship Macobbar..... | .... | Oppice. | Syed Omer. | Calcutta. |
| B. ship Kusrovie..... | 700 | Middleton. | Geo. Armstrong & Co. | Siam. |

NATIVE CRAFT, BRITISH.—Buffalo, Enseng, Emma, Psyche.

DUTCH.—Tin Goan, Fatahool Salam, Louisa, Fatahool Borre, Goan Lee, Karap, Goat Goan, Fattal Khair, Tan Goan, Iksing, Bopaul, Djoennating, Goan Lee, Kim Soon Goan, and Vrouw Jacoba.

MALAY.—Mohabar and Young Queen.

Among the articles in the Singapore market, the prices of which are stated in the Price Current, we would specify those of arrack, betel-nut, China camphor, cassia lignea,

* For an article on the Commerce of Malacca, Singapore, &c., by J. Balestier, Esq., U. S. Consul at Singapore, see pp. 351–355 of the present number of this Magazine.

Mauritius and Ceylon ebony, Pahang gold dust, mother-of-pearl shells, mace, nutmegs, opium, pepper, sago, sandal-wood, China nankin, Canton raw silk, tea, and tortoise-shell. In the brief view of the resources and commerce of Singapore, which we have taken, it appears that a considerable amount of trade is prosecuted from its port. The progress of commercial enterprise is doubtless destined to develop the resources of the oriental nations; and we hope that the moral condition of those countries will be improved, in proportion to the advance of their improvement in other respects.

## CORN PREFERABLE TO MONEY FOR IRELAND.

Amasa Walker, of North Brookfield, Mass., has written a letter to the Worcester Transcript, in which he gives several reasons for sending corn to Ireland, instead of money. The corn, or breadstuffs of some sort, is what the starving people need, and will be available as soon as received. If we send money, we create a demand for corn in Ireland and England, and thus enhance the price of corn there for sale; while if we send the corn it will supply to an extent the great demand existing for it, and bring large quantities now stored up there into market at reduced prices. Besides, if we send *money funds*, it is virtually carrying so much money out of the country, which may, and very probably will, be expended in buying wheat of the English monopolists, or from traders from the Black Sea; and making a market for the produce of other nations instead of our own. Intelligent people in Ireland, from their own observation, are led to say that they "believe our donation will be worth double if sent in corn, instead of money, bills of exchange, and the like."

## SMUGGLING BY AMERICAN AND FRENCH WHALERS.

North American and French whalers have, for several years past, been frequent visiters to San Carlos, Peru, as they can there provide themselves, at a cheap rate, with provisions for the long fishing season. All the captains bring goods which they smuggle on shore, where they sell or exchange them at a high profit. A custom-house officer is, indeed, sent on board every vessel to examine what is to be unshipped; but a few dollars will silence him, and make him favor the contraband operations, which are carried on without much reserve. A French captain brought to Chiloe a quantity of water-proof cloaks and hats, made of a sort of black waxed cloth, and sold them to a dealer in San Carlos. To evade the duty, he sent his men on shore, each wearing one of these hats and cloaks, which they deposited in the dealer's store, and then returned on board the ship, dressed in their sailor's garb. This was repeated so often, that at length it was intimated to the captain, that if his men had a fancy to come on shore with such hats and cloaks, they would be permitted to do so, but it must be on condition of their returning on board dressed in the same costume.

## INGENIOUS METHOD OF SMUGGLING TOBACCO.

Syreen, a custom-house officer at Liverpool, apprehended a woman named Eliza Smith, a passenger on board an American vessel, on suspicion of having smuggled tobacco in her possession. Upon examining her dress, seventeen pounds of tobacco were found concealed under it; but the most remarkable of the expedients which had been resorted to for the purpose of deceiving the lynx-eyed deputies of the customs, was that of giving to the contraband leaf the resemblance of a loaf. A quantity of cut tobacco had been pressed into a tin, over which a thin layer of dough was spread, which, being baked, had the appearance to the eye of a veritable loaf. The quantity of tobacco which the woman had contrived to secrete in this, and other modes, amounted to no less than seventy pounds.

# STATISTICS OF POPULATION.

## THE PROGRESS OF POPULATION IN MASSACHUSETTS.

*A Statistical View of the Population of Massachusetts, from* 1765 *to* 1840. By Jesse Chickering, M. D. 8vo., pp. 160. Boston: Charles C. Little & James Brown.

The object of this essay is to exhibit the increase of the population of Massachusetts, and the change which has taken place in the number and proportions of the inhabitants in the several parts of the Commonwealth, during the period of seventy-five years, from 1765 to 1840.

It would occupy more space than we can well spare to give even a comprehensive analysis of the contents of this very ingenious, able, and thorough statistical view of the progress of population in the "Old Bay State." The author, a modest and retiring gentleman, is, so far as we know, without a rival on the score of statistics in this country, and were he a resident of Great Britain, the administration of that kingdom would not permit him to remain long in seclusion. His untiring industry, and talent for statistical analysis, would there be fully appreciated and amply rewarded. It is matter of deep regret that our government did not avail itself of the services of this gentleman, in the organization of the statistical bureau, projected by a member of Congress from this State, the Hon. Zadok Pratt, of Prattsville. But partizans prefer *votes* to *ability*, and we must patiently wait for that "good time coming," when honesty and capacity shall take the precedence of political quackery and corruption. We shall refer to this work again; in the meantime we commend it to all who take an interest in the progress of statistical science, and we earnestly hope that the worthy author may meet with the encouragement his enterprise and labors so eminently deserve.

We can find room, at this time, for only a single extract from this carefully compiled work, which exhibits the average increase of population in Massachusetts, from 1768 to 1790:—

"On the 16th of February, 1776, a resolve passed the legislature for taking a census of the colony of Massachusetts Bay, of which the returns show the number of the whites to have been, in that year..... 333,418
from which deduct 17,623 in York county, 14,110 in Cumberland county, and 15,546 in Lincoln county, belonging to the State of Maine..... 47,279

and we have..... 286,139
The whole number of the blacks was 5,249, from which deduct 241 on account of the three counties in Maine..... 4,761

and we have for the whole population in 1776..... 290,900
which is only 139 less than the mean number in 1775, as deduced from the average increase of the census in 1765.
In 1784, the number of the polls in Massachusetts Bay was..... 90,757
from which deduct, on account of the three counties in Maine..... 13,723

and we have for the number of the polls..... 77,034
By multiplying this number by 4½, we have 346,653, which is 281 less than 346,934, the mean number in 1785, as deduced from the average increase from 1765. I have referred to the censuses of 1776 and 1784, in order to show their near agreement with the results deduced from the average increase.

The average increase of Massachusetts, in each period of ten years, from 1765 to 1790, was 19.2054 per cent; and from 1790 to 1840, 14.2606 per cent.

The average increase of Massachusetts, in each period of twenty years, from 1765 to 1790, was 42.0992 per cent, and from 1790 to 1840, 30.5551 per cent.

The average increase of Boston, in each period of ten years, from 1790 to 1840, was 38.506 per cent; and of the rest of the State only 12.3173 per cent.

The increase of Massachusetts, from 1765 to 1840, was 493,551, or 202.1515 per cent; of Boston, 77,863, or 501.6945 per cent; and of the rest of the State, 415,688, or 181.8177 per cent.

The average increase of Massachusetts, from 1765 to 1840, in each twenty-five years, was 44.5688 per cent; in each twenty years, 34.2950 per cent; in each ten years, 15.8857 per cent; in each five years, 7.6503 per cent; and in each year, 1.4853 per cent. This last is 0.1433 per cent per annum greater than 1.3420 per cent, the rate from 1790 to 1840.

It will appear from these statements, that the average increase of the population of Massachusetts was greater from 1765 to 1790 than it has been since. Had the rate continued the same, the number would have been 911,749 in 1840. Also, the increase of Boston was, on an average, much *less* during the first twenty-five years, than that of the other parts of the State, and much *greater* during the last two periods of twenty-five years each, showing a tendency to a centralization in Boston."

## INCREASE OF POPULATION IN THE WESTERN STATES.

The Home Missionary thus sums up the growth of the Western States:—

Ohio welcomed the first permanent settlers in 1788; now is occupied by 1,732,000 people.

Michigan, to which the attention of emigrants was turned twelve or fourteen years ago, now has 300,000 people.

Indiana, admitted into the Union in 1816, has received a population of more than half a million since 1830, and now numbers more than 900,000 inhabitants.

Illinois was organized as a separate territory in 1810, and entered the Union as a State in 1818. From that date, its population trebled every ten years till the last census, and in the last five years it has arisen from 476,000 to 700,000.

Missouri, which in 1816 had only 20,800 people, has now 600,000, having increased 50 per cent in five years.

Iowa was scarcely heard of at the East ten years ago; it is but fourteen years since the only white inhabitants, north of the Missouri line, were a few Indian traders. More than 100,000 now make that beautiful land their home; 60,000 of whom have gone in during the last four years.

Wisconsin was organized ten years ago; the marshals have just taken the census, and, from present appearances, the population will vary but little from 150,000, being an increase of 100,000 in five years. One portion of the territory, 33 miles by 30, which, ten years ago, was an unbroken wilderness, now numbers 30,000 inhabitants; and the emigration to that portion of the West is greater than ever. The seven new States and Territories above enumerated—to say nothing of the other Western and Southwestern States and Texas—have increased since the last adjustment of the ratio, more than a million and a half.

## PROGRESS OF POPULATION IN PARIS.

The population of Paris increases with wonderful rapidity—much faster than that of London, and even the average increase on this side of the Atlantic. A Paris paper says that the census of 1846 shows that the population of the capital now amounts to 1,353,097 souls, and that of the department of the Seine, to 1,356,907. The census of 1841 gave 1,181,425, as the population of the department; that of 1836, 1,106,000, and that of 1832, 935,000. In the first five years, therefore, the increase of population has been at the rate of 19 per cent; in the second, 7 per cent; and from 1841 to 1846, about 15 per cent. The department of the Seine now contains 422,000 souls more than it did in 1832. Should the actual proportion of increase be maintained, in twenty years more, Paris and its suburbs will contain a population of two millions. The enormous assemblage of men, houses, and interests, denominated London, may then find itself equalled.

# NAUTICAL INTELLIGENCE.

## WHALERS AT VAN DIEMAN'S LAND.

IMPORTANT TO WHALERS.—The Legislative Council of the island of Van Dieman's Land and its dependencies, in order to encourage the resort of vessels of all nations engaged in the whale fishery, have passed an act, providing that "vessels of all nations outfitting for, or refitting from the fisheries, and all vessels arriving and sailing in ballast, or which may not break bulk, or only to such an extent as may be necessary to provide funds for the repairs, refittings, or refreshments required, shall be wholly exempted from all port charges and light-house dues whatsoever, except only those of pilotage in cases where the service of a pilot shall have been actually required and received, anything contained in any act to the contrary notwithstanding."

The Council have also passed an act, exempting from the payment of all port charges, wharfage, and light-house dues, excepting pilotage as aforesaid, all vessels of foreign powers included in any treaty of commerce with Great Britain and Ireland, which shall arrive at Hobart Town, for the purpose of landing and bonding for exportation only, any oil or whalebone the produce of fish caught or taken by the crew of such vessel, and shall land such oil and whalebone at any quay appointed by the Lieutenant-Governor, with the advice of the Executive Council for such especial purpose, and shall bond the same in a warehouse approved by the collector of customs for such purposes.

These acts are promulgated by his excellency, Sir John Eardly Wilmot, Baronet, Lieutenant-Governor of the island of Van Dieman's Land and its dependencies, with the advice of the Legislative Council.

## NEWLY DISCOVERED ISLANDS.

Captain J. R. Sands, of the whale-ship Benjamin Tucker, at Honolulu, Sandwich Islands, reports as follows:—

"On the passage from Sandwich Islands to Cape Horn, on the 19th October, fine clear weather, not expecting to see land, a man from the masthead reported land in sight, which proved to be four small islands, lying in lat. 21° 50′ S., lon. 115° 4′ W., bearing from Rimurara W. N. W. ¼ W.; about two degrees from which there is a small island, marked on the chart about one degree W. The islands spoken of above, contain a circumference of about ten miles, with very high breakers clear around them, the height of the land not being above thirty feet. The above, not being laid down in any book or chart in my possession, except the small island to the westward, I give them to the public as I found them."

## PORT OF TAMPICO—MEXICO.

EXTRACT FROM ORDER NO. 63 OF GENERAL PATTERSON.

II. "*Port charges and harbor dues*" are hereby reduced to one-half of the several sums heretofore established by the municipal committee, and the amount collected from this source will be paid weekly to the senior surgeon of the army at Tampico, for the benefit of the hospital.

III. The charges heretofore exacted on produce or merchandise of any kind, under the name of "*wharfage and town dues*," being an indirect tax on American citizens and American trade, will cease from this date to be made on any produce or merchandise coming from or going to the United States in U. S. vessels.

## NEW LIGHT-TOWER ON THE ISLAND SOERHAAGEN.

A new light-tower has been erected north of the island Soerhaagen, which was to be lighted up for the first time on the 1st December, 1846. It is a fixed light, and has principally for its object to direct vessels entering the Hovgesund, their course north round Bommeltjorden. This light will burn throughout the year, at the same period as all other government lights. The altitude of the light above the level of the sea is seventy feet, and visible at the distance of three leagues, lat. 59° 25′ 15″, lon. 5° 15′ 30″ of Greenwich.

# COMMERCIAL REGULATIONS.

## TABLE OF DUTIES UNDER THE LAST BRITISH TARIFF.

| | | | |
|---|---|---|---|
| Agates or Cornelians, cut, manufactured, or set.....for every £100 value | £10 | 0 | 0 |
| Ale and beer of all sorts.....the barrel | 1 | 0 | 0 |
| Almonds, paste of.....for every £100 value | 10 | 0 | 0 |
| Amber, manufactures of, not enumerated..... | 10 | 0 | 0 |
| Arrowroot.....the cwt. | 0 | 2 | 6 |
| Of and from a British possession..... | 0 | 0 | 6 |
| Bandstring Twist.....for every £100 value | 10 | 0 | 0 |
| Of and from a British possession..... | 5 | 0 | 0 |
| Barley, pearled.....the cwt. | 0 | 1 | 0 |
| Of and from a British possession..... | 0 | 0 | 6 |
| Bast ropes, twines, and strands.....for every £100 value | 10 | 0 | 0 |
| Of and from a British possession..... | 5 | 0 | 0 |
| Beads, viz:—Arango..... | 10 | 0 | 0 |
| Coral..... | 10 | 0 | 0 |
| Crystal..... | 10 | 0 | 0 |
| Jet..... | 10 | 0 | 0 |
| Not otherwise enumerated or described..... | 10 | 0 | 0 |
| Beer or Mum.....the barrel | 1 | 0 | 0 |
| Blacking.....for every £100 value | 10 | 0 | 0 |
| Brass, manufactures of..... | 10 | 0 | 0 |
| Powder of..... | 10 | 0 | 0 |
| Brocade of gold or silver..... | 10 | 0 | 0 |
| Bronze, manufactures of, not particularly enumerated..... | 10 | 0 | 0 |
| Powder..... | 10 | 0 | 0 |
| Buckwheat.....the quarter | 0 | 1 | 0 |
| Meal.....the cwt. | 0 | 0 | 4½ |
| Butter..... | 0 | 10 | 0 |
| Of and from a British possession..... | 0 | 2 | 6 |
| Buttons, metal.....for every £100 value | 10 | 0 | 0 |
| Cameos..... | 5 | 0 | 0 |
| Candles, viz:—Spermaceti.....the lb. | 0 | 0 | 3 |
| Stearine..... | 0 | 0 | 1¼ |
| Tallow.....the cwt. | 0 | 5 | 0 |
| Wax.....the lb. | 0 | 0 | 2 |
| Canes, walking-canes, or sticks, mounted, painted, or otherwise ornamented.....for every £100 value | 10 | 0 | 0 |
| Carriages, of all sorts..... | 10 | 0 | 0 |
| Casks, empty..... | 10 | 0 | 0 |
| Cassava powder.....the cwt. | 0 | 1 | 6 |
| Of and from a British possession..... | 0 | 0 | 6 |
| Catlings.....for every £100 value | 10 | 0 | 0 |
| Cheese.....the cwt. | 0 | 5 | 0 |
| Of and from a British possession..... | 0 | 1 | 6 |
| China or porcelain-ware, painted or plain, gilt or ornamented..every £100 | 10 | 0 | 0 |
| Cider.....the tun | 5 | 5 | 0 |
| Citron, preserved in salt.....for every £100 value | 5 | 0 | 0 |
| Clocks..... | 10 | 0 | 0 |
| Copper manufactures, not otherwise enumerated or described, and copper-plates engraved.....for every £100 value | 10 | 0 | 0 |
| Copper or brass wire..... | 10 | 0 | 0 |
| Cotton, articles or manufactures of cotton, wholly or in part made up, not otherwise charged with duty.....for every £100 value | 10 | 0 | 0 |
| Of and from a British possession..... | 5 | 0 | 0 |
| Crayons..... | 10 | 0 | 0 |
| Crystal, cut or manufactured..... | 10 | 0 | 0 |
| Cucumbers, preserved in salt..... | 5 | 0 | 0 |
| Of and from a British possession..... | 2 | 10 | 0 |

| | | | |
|---|---|---|---|
| Fish, cured, not otherwise enumerated | the cwt. | £0 | 1 | 0 |
| Gauze of thread | for every £100 value | 10 | 0 | 0 |
| Of and from a British possession | | 5 | 0 | 0 |
| Hair, manufactures of hair or goat's wool, or of hair or goat's wool and any other material, and articles of such manufacture wholly or in part made up, not particularly enumerated, or otherwise charged with duty | for every £100 value | 10 | 0 | 0 |
| Of and from a British possession | | 5 | 0 | 0 |
| Hams of all kinds | the cwt. | 0 | 7 | 0 |
| Of and from a British possession | | 0 | 2 | 0 |
| Harp-strings or lute-strings, silvered | for every £100 value | 10 | 0 | 0 |
| Hats or Bonnets, viz.—of chip | the lb. | 0 | 3 | 6 |
| Of Bast, cane, or horsehair, hats or bonnets, each hat or bonnet not exceeding 22 inches in diameter | the dozen | 0 | 7 | 6 |
| Each hat or bonnet exceeding 22 inches in diameter | | 0 | 10 | 0 |
| Straw hats or bonnets | the lb. | 0 | 5 | 0 |
| Hats, felt, hair, wool, or beaver hats | each | 0 | 2 | 0 |
| Made of silk, silk shag laid upon felt, linen, or other material | | 0 | 2 | 0 |
| Hops | the cwt. | 2 | 5 | 0 |
| Iron and steel, wrought, not otherwise enumerated | for every £100 value | 10 | 0 | 0 |
| Japanned or lacquered ware | | 10 | 0 | 0 |
| Lace, viz., thread | | 10 | 0 | 0 |
| Made by the hand, commonly called cushion or pillow lace, whether of linen, cotton, or silken thread | for every £100 value | 10 | 0 | 0 |
| Latten wire | | 10 | 0 | 0 |
| Lead, manufactures of, not otherwise enumerated | | 10 | 0 | 0 |
| Leather, manufactures of:— | | | | |
| Women's boots, shoes, and calashes | the dozen pairs | 0 | 6 | 0 |
| Women's boots, shoes, and calashes, if lined or trimmed with fur or other trimming | the dozen pairs | 0 | 7 | 6 |
| Women's shoes with cork or double soles, quilted shoes and clogs | | 0 | 5 | 0 |
| Women's shoes, if trimmed or lined with fur or any other trimming | | 0 | 6 | 0 |
| Women's shoes of silk, satin, jean, or other stuffs, kid, morocco, or other leather | the dozen pairs | 0 | 4 | 6 |
| Women's shoes, if trimmed or lined with fur or any other trimming | | 0 | 5 | 0 |
| Girls' boots, shoes, and calashes, not exceeding 7 inches in length, to be charged with two-thirds of the above duties. | | | | |
| Men's boots | the dozen pairs | 0 | 14 | 0 |
| Men's shoes | | 0 | 7 | 0 |
| Boys' boots and shoes, not exceeding 7 inches in length, to be charged with two-thirds of the above duties. | | | | |
| Boot fronts, not exceeding 9 inches in height | the dozen pairs | 0 | 1 | 9 |
| Boot fronts, exceeding 9 inches in height | | 0 | 2 | 9 |
| Cut into shapes, or any article made of leather, or any manufacture whereof leather is the most valuable part, not otherwise enumerated or described | for every £100 value | 10 | 0 | 0 |
| Linen, or linen and cotton, viz:—cambrics and lawns, commonly called French lawns, the piece not exceeding eight yards in length, and not exceeding seven-eighths of a yard in breadth, and so in proportion for any greater or less quantity, plain | the piece | 0 | 2 | 6 |
| Bordered handkerchiefs | | 0 | 2 | 6 |
| Lawns of any sort, not French | for every £100 value | 10 | 0 | 0 |
| Damasks | the square yard | 0 | 0 | 5 |
| Damask diaper | | 0 | 0 | 2½ |
| Sails, not in actual use of a British ship, and not fit and necessary for such ship, and when otherwise disposed of | for every £100 value | 10 | 0 | 0 |
| Articles, manufactures of linen, or of linen mixed with cotton or with wool, wholly or in part made up, not particularly enumerated or otherwise charged with duty | for every £100 value | 10 | 0 | 0 |
| Maize or Indian Corn | the quarter | 0 | 1 | 0 |
| Meal | the cwt. | 0 | 0 | 4½ |
| Musical Instruments | for every £100 value | 10 | 0 | 0 |
| Mustard Flour | the cwt. | 0 | 6 | 0 |
| Paper, printed, painted, or stained paper, or paper-hangings, or flock paper, | the square yard | 0 | 0 | 2 |

| | | | | |
|---|---|---|---|---|
| Pencils | for every £100 value | £10 | 0 | 0 |
| Of slate | | 10 | 0 | 0 |
| Perfumery, not otherwise charged | | 10 | 0 | 0 |
| Perry | the tun | 5 | 5 | 0 |
| Pewter, manufactures of | for every £100 value | 10 | 0 | 0 |
| Platting of straw | the lb. | 0 | 5 | 0 |
| Pomatum | for every £100 value | 10 | 0 | 0 |
| Potato Flour | the cwt. | 0 | 1 | 0 |
| Pots of stone | for every £100 value | 10 | 0 | 0 |
| Rice | the cwt. | 0 | 1 | 0 |
| Of and from a British Possession | | 0 | 0 | 6 |
| Rough and in the husk | the quarter | 0 | 1 | 0 |
| Of and from a British Possession | | 0 | 0 | 1 |
| Sago | the cwt. | 0 | 0 | 6 |
| Sausages or puddings | the lb. | 0 | 0 | 1 |
| Silk, manufactures of silk, or of silk mixed with metal, or any other material, the produce of Europe, viz:— | | | | |
| Silk or satin, plain, striped, figured, or brocaded, viz., broad stuffs | the lb. | 0 | 5 | 0 |
| Articles thereof, not otherwise enumerated | | 0 | 6 | 0 |
| Or, and at the option of the officers of the customs | every £100 value | 15 | 0 | 0 |
| Silk, gauze or crape, plain, striped, figured, or brocaded, viz., broad stuffs | the lb. | 0 | 9 | 0 |
| Articles thereof, not otherwise enumerated | | 0 | 10 | 0 |
| Or, and at the option of the officers of the customs | every £100 value | 15 | 0 | 0 |
| Gauze of all descriptions, mixed with silk, satin, or any other materials, in less proportion than one-half part of the fabric, viz., broad stuffs | the lb. | 0 | 9 | 0 |
| Articles thereof, not otherwise enumerated | | 0 | 10 | 0 |
| Or, and at the option of the officers of the customs | every £100 value | 15 | 0 | 0 |
| Velvet, plain or figured, viz., broad stuffs | the lb. | 0 | 9 | 0 |
| Articles thereof, not otherwise enumerated | | 0 | 10 | 0 |
| Or, and at the option of the officers of the customs | every £100 value | 15 | 0 | 0 |
| Ribbons, plain silk, of one color only | the lb. | 0 | 6 | 0 |
| Plain satin, of one color only | | 0 | 8 | 0 |
| Silk or satin, striped, figured, or brocaded, or plain ribbons of more than one color | the lb. | 0 | 10 | 0 |
| Gauze or crape, plain, striped, figured, or brocaded | | 0 | 14 | 0 |
| Gauze mixed with silk, satin, or other materials of less proportion than one-half part of the fabric | the lb. | 0 | 12 | 0 |
| Velvet, or silk embossed with velvet | | 0 | 10 | 0 |
| Artificial flowers, wholly or in part of silk | for every £100 value | 25 | 0 | 0 |
| Manufactures of silk, or of silk and any other material, called plush, commonly used for making hats | the lb. | 0 | 2 | 0 |
| Fancy silk net or tricot | | 0 | 8 | 0 |
| Plain silk lace or net, called tulle | | 0 | 8 | 0 |
| Manufactures of silk, or of silk, mixed with any other materials, not particularly enumerated, or otherwise charged with duty | every £100 value | 15 | 0 | 0 |
| Ribbons, of and from a British possession | | 5 | 0 | 0 |
| Millinery of silk, or of which the greater part of the material is silk, viz., | | | | |
| Turbans, or caps | each | 0 | 3 | 6 |
| Hats or bonnets | | 0 | 7 | 0 |
| Dresses | | 1 | 10 | 0 |
| Manufactures of silk, or of silk and any other materials, and articles of the same wholly or partially made up, not particularly enumerated or otherwise charged with duty | for every £100 value | 15 | 0 | 0 |
| Silkworm gut | | 10 | 0 | 0 |
| Skins, articles manufactured of skins or furs | | 10 | 0 | 0 |
| Of and from a British possession | | 5 | 0 | 0 |
| Soap, hard | the cwt. | 1 | 0 | 0 |
| Of and from a British possession | | 0 | 14 | 0 |
| Soft | | 0 | 14 | 0 |
| Of and from a British possession | | 0 | 10 | 0 |
| Naples | | 1 | 0 | 0 |
| Spa ware | for every £100 value | 10 | 0 | 0 |
| Spirits or strong waters of all sorts, viz:— | | | | |
| For every gallon of such spirits or strong waters, of any strength not ex- | | | | |

| | | | |
|---|---|---|---|
| ceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater or less strength than the strength of proof, and for any greater or less quantity than a gallon, viz:— | | | |
| Not being spirits or strong waters, the produce of any British possession in America, or any British possession within the limits of the East India Company's Charter, and not being sweetened spirits, or spirits mixed with any article so that the degree of strength thereof cannot be exactly ascertained by such hydrometer.....the gallon | £0 | 15 | 0 |
| Starch.....the cwt. | 0 | 5 | 0 |
| Of and from a British possession..... | 0 | 2 | 6 |
| From and after the 1st of February, 1849..... | 0 | 1 | 0 |
| Gum of, torrified or calcined, commonly called British gum..... | 0 | 5 | 0 |
| Of and from a British possession..... | 0 | 2 | 6 |
| Gum of, torrified or calcined, commonly called British gum, from and after the 1st of February, 1849.....the cwt. | 0 | 1 | 0 |
| Steel, manufactures of.....for every £100 value | 10 | 0 | 0 |
| Tallow.....the cwt. | 0 | 1 | 6 |
| Of and from a British possession..... | 0 | 0 | 1 |
| Tapioca.....the cwt. | 0 | 0 | 1 |
| Tin, manufactures of, not otherwise enumerated.....for every £100 value | 10 | 0 | 0 |
| Tobacco pipes of clay..... | 10 | 0 | 0 |
| Tongues.....the cwt. | 0 | 7 | 0 |
| Of and from a British possession..... | 0 | 2 | 0 |
| Turnery, not otherwise described.....for every £100 value | 10 | 0 | 0 |
| Twine..... | 10 | 0 | 0 |
| Of and from a British possession..... | 5 | 0 | 0 |
| Varnish, not otherwise described..... | 10 | 0 | 0 |
| Verjuice.....the tun | 4 | 4 | 0 |
| Wafers.....for every £100 value | 10 | 0 | 0 |
| Washing balls.....the cwt. | 1 | 0 | 0 |
| Wax, sealing wax.....for every £100 value | 10 | 0 | 0 |
| Whipcord..... | 10 | 0 | 0 |
| Wire, gilt or plated, or silver..... | 10 | 0 | 0 |
| Woollens, articles or manufactures of wool, not being goats' wool, or of wool mixed with cotton, wholly or in part made up, not otherwise charged with duty.....for every £100 value | 10 | 0 | 0 |
| Of and from a British possession..... | 5 | 0 | 0 |
| Goods, wares, and merchandise, being either in part or wholly manufactured, and not being enumerated or described, not otherwise charged with duty, and not prohibited to be imported into or used in Great Britain or Ireland.....for every £100 value | 10 | 0 | 0 |
| ADDITIONAL ARTICLES UNDER THE 9 AND 10 VICT. CAP. 102. | | | |
| Flowers, artificial, not made of silk.....for every £100 value | £25 | 0 | 0 |
| Liquorice juice and liquorice paste.....the cwt. | 1 | 0 | 0 |
| Of and from a British possession..... | 0 | 10 | 0 |
| Nutmegs.....the lb. | 0 | 2 | 6 |
| Nutmegs, wild, in the shell..... | 0 | 0 | 3 |
| Spirits or strong waters, for every gallon of such spirits or strong waters of any strength, not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater or less strength than the strength of proof, and for any greater or less quantity than a gallon, viz: | | | |
| Spirits or strong waters, the produce of any British possession in America, not being sweetened spirits, or spirits mixed with any article so that the degree of strength thereof cannot be exactly ascertained by such hydrometer.....the gallon | 0 | 8 | 10 |
| Rum, the produce of any British possession within the limits of the East India Company's Charter, not being sweetened spirits, or spirits so mixed as aforesaid, in regard to which the conditions of the Act 4 Vict. c. 8, have or shall have been fulfilled.....the gallon | 0 | 8 | 10 |
| Rum shrub, however sweetened, the produce of and imported from such possessions, in regard to which the conditions of the Act 4 Vict. c. 8, had or shall have been fulfilled, or the produce of, and imported from any British possession in America.....the gallon | 0 | 8 | 10 |
| Platting, viz., willow squares.....for every £100 value | 10 | 0 | 0 |

## SUSPENSION OF THE BRITISH NAVIGATION LAWS.

In the Merchants' Magazine for March, 1847, we published, under the head of "Commercial Regulations," (page 311,) an act to amend the laws relating to the importation of corn, and the duties imposed on its importation, into Great Britain, under that act. We have since been favored with the following authentic copies of the two important laws recently passed by the British Parliament, on the subject of the suspension of the navigation laws and the importation of corn free of duty:—

AN ACT TO SUSPEND, UNTIL THE FIRST DAY OF SEPTEMBER, ONE THOUSAND EIGHT HUNDRED AND FORTY-SEVEN, THE DUTIES ON THE IMPORTATION OF CORN.

*January*, 26, 1847.

Whereas, by an act passed in the session of Parliament, holden in the ninth and tenth years of the reign of her present majesty, entitled, "An Act to amend the Laws relating to the Importation of Corn," it is enacted, That there shall be levied and paid unto her majesty, her heirs, and successors, on all corn, grain, meal, and flour, imported into the United Kingdom, or the Isle of Man, from parts beyond the seas, and entered for home consumption, until the first day of February, which will be in the year of our Lord, one thousand eight hundred and forty-nine, certain duties set forth in the schedule to the said act annexed; and whereas, by reason of the partial failure of certain crops usually forming part of the subsistence of the people of these islands, it is expedient that, for a time to be limited, no duties should be levied upon the entry for consumption of the said articles or any of them: Be it therefore enacted by the Queen's most excellent majesty, by and with the advice and consent of the Lords, spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, That no duties of customs shall be chargeable upon any corn, grain, meal, or flour, already imported or hereafter to be imported into the United Kingdom, or the Isle of Man, from parts beyond the seas, and entered for home consumption, after the passing of this act, and before the first day of September in this present year.

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AN ACT TO ALLOW, UNTIL THE FIRST DAY OF SEPTEMBER, ONE THOUSAND EIGHT HUNDRED AND FORTY-SEVEN, THE IMPORTATION OF CORN FROM ANY COUNTRY IN FOREIGN SHIPS.

*January* 26, 1847.

Whereas, it is expedient to allow, for a limited time, corn, maize, grain, meal, flour, rice, and potatoes, to be imported in any ship or vessel, from any country whatever, and that such articles warehoused for exportation only should be allowed to be entered for home consumption: Be it therefore enacted by the Queen's most excellent majesty, by and with the advice and consent of the Lords, spiritual and temporal, and Commons, in this present Parliament assembled, and by the authority of the same, That from and after the passing of this act, and before the first day of September in this present year, it shall and may be lawful for any person or persons to import into the United Kingdom for home use, from any country, in any ship or vessel of any country, however navigated, any corn, maize, grain, flour, meal, rice, or potatoes, the growth or produce of any country, anything in the law of navigation to the contrary, in any wise, notwithstanding.

2. *And be it enacted*, That from and after the said passing of this act, until the said first day of September, inclusive, in this present year, any corn, maize, grain, flour, meal, rice, or potatoes, the growth or produce of any country, which may have been warehoused in the United Kingdom for exportation only, may be entered for home consumption, anything in the law of navigation, to the contrary, in any wise, notwithstanding.

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## IMPORTATION OF GRAINS, ETC., INTO FRANCE.

We publish below a highly important bill, as it passed the Chamber of Deputies at Paris, by a unanimous vote, on the 22d of January, 1847. It has since become a law.

BILL CONCERNING THE IMPORTATION OF FOREIGN BREADSTUFFS.

Art. 1. All cereal grains and flour imported, whether by land, or in French or foreign bottoms, in good order, shall not be subjected, up to the 31st of July, 1847, to any duty above the minimum, as established by the law of the 15th of April, 1839. Rice, all kinds of dried vegetables, groats, oat-meal, and other such food, imported in the same manner, without distinction of quality, shall only be subject, up to the same period, 31st July next, to a duty of 25 centimes to each 100 kilogrammes.

Art. 2. Up to the same time, vessels of every nation which shall arrive at the ports of the kingdom, with cargoes of grain or flour, or any other of the articles above specified, shall be exempt from all tonnage dues whatsoever.

Art. 3. The provisions of the two preceding articles shall be applicable to all such French and foreign vessels whose manifesto, when cleared, shall show that their cargoes consisted of the breadstuffs above-mentioned, and which shall have been completed before the 31st of July next, at the place of clearance, notwithstanding they may not have arrived at any one of the ports of France prior to the 31st of July.

Art. 4. The authority granted to government by the 8th article of the law of the 22d June, 1846, of modifying the importation and exportation duties on cereal grains and cornmeal, is to be maintained till the 31st July, 1847, and the privilege of modifying the duties on the imports and exports of the aforesaid breadstuffs, including buckwheat, is also continued to the same date.

## PASSENGERS IN MERCHANT VESSELS.

The following is an authentic copy of an act to regulate the carriage of passengers in merchant vessels. It passed both Houses of Congress by the constitutional majority, and was approved by the President of the United States, February 22d, 1847:—

AN ACT TO REGULATE THE CARRIAGE OF PASSENGERS IN MERCHANT VESSELS.

*Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled*, That if the master of any vessel, owned in whole or in part by a citizen of the United States of America, or by a citizen of any foreign country, shall take on board such vessel, at any foreign port or place, a greater number of passengers than in the following proportion to the space occupied by them and appropriated for their use, and unoccupied by stores or other goods, not being the personal luggage of such passengers, that is to say, on the lower deck or platform one passenger for every fourteen clear superficial feet of deck, if such vessel is not to pass within the tropics during such voyage, but if such vessel is to pass within the tropics during such voyage, then one passenger for every twenty such clear superficial feet of deck, the orlop deck, (if any,) one passenger for every thirty such superficial feet in all cases, with intent to bring such passengers to the United States of America, and shall leave such port or place with the same, and bring the same, or any number thereof, within the jurisdiction of the United States aforesaid: or if any such master of a vessel shall take on board of his vessel, at any port or place within the jurisdiction of the United States aforesaid, any greater number of passengers than the proportions aforesaid admit, with intent to carry the same to any foreign port or place, every such master shall be deemed guilty of a misdemeanor, and, upon conviction thereof before any Circuit or District Court of the United States aforesaid, shall, for each passenger taken on board beyond the above proportions, be fined in the sum of fifty dollars, and may also be imprisoned for any term not exceeding one year: *Provided*, That this act shall not be construed to permit any ship or vessel to carry more than two passengers to five tons of such ship or vessel.

Sec. 2. *And be it further enacted*, That if the passengers so taken on board of such vessel, and brought into or transported from the United States aforesaid, shall exceed the number limited by the last section to the number of twenty in the whole, such vessel shall be forfeited to the United States aforesaid, and be prosecuted and distributed as forfeitures are, under the act to regulate duties on imports and tonnage.

Sec. 3. *And be it further enacted*, That if any such vessel as aforesaid shall have more than two tiers of berths, or in case, in such vessel, the interval between the floor and the deck or platform beneath, shall not be at least six inches, and the berths well constructed, or in case the dimensions of such berths shall not be at least six feet in length, and at least eighteen inches in width, for each passenger as aforesaid, then the master of said vessel and the owners thereof, severally, shall forfeit and pay the sum of five dollars for each and every passenger on board of said vessel on such voyage, to be recovered by the United States as aforesaid, in any Circuit or District Court of the United States, where such vessel may arrive, or from which she sails.

Sec. 4. *And be it further enacted*, That, for the purposes of this act, it shall in all cases be computed, that two children, each being under the age of eight years, shall be equal to one passenger, and that children under the age of one year shall not be included in the computation of the number of passengers.

Sec. 5. *And be it further enacted*, That the amount of the several penalties imposed by this act, shall be liens on the vessel or vessels violating its provisions; and such vessel may be libelled and sold therefor, in the District Court of the United States aforesaid, in which such vessel shall arrive.

AN ACT TO AMEND AN ACT, ENTITLED "AN ACT TO REGULATE THE CARRIAGE OF PASSENGERS IN MERCHANT VESSELS," AND TO DETERMINE THE TIME WHEN SAID ACT SHALL TAKE EFFECT.

*Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled,* That the act to regulate the carriage of passengers in merchant vessels, approved the 22d day of February, eighteen hundred and forty-seven, shall, in regard to all vessels arriving from ports on this side of the Capes of Good Hope and Horn, take effect and be in force from and after the thirty-first day of May next ensuing; and in regard to all vessels arriving from places beyond the said capes, on and after the thirteenth day of October next ensuing.

Sec. 2. *And be it further enacted,* That so much of said act as authorizes shippers to estimate two children of eight years of age and under, as one passenger, in the assignment of room, is hereby repealed.

Approved, March 2, 1847.

## UNITED STATES CONSULATE, JAMAICA.

SURVEY OF GOODS LANDED AT JAMAICA IN A DAMAGED STATE.

The following extract of a letter from the American consul at Kingston, Jamaica, has been furnished the press for publication by the respectable commercial house of J. W. Zacharie & Co., of New Orleans:—

"Although it has been more than once duly notified in the public papers of this city, by the American consul, that goods landed in American vessels, in a damaged state, should not only be surveyed under a warrant from said consul, but that the vendue sales should be authenticated by him also; there are, nevertheless, certain persons doing business here, who pay not the least regard to the above notification, and they invariably call whom they please as surveyors on the same, without giving the least notice to the consul, and have also dispensed with his verification of the vendue sales.

"Should this irregularity not be discountenanced by the merchants and underwriters in the United States, it will most assuredly lead to frauds on both the one and the other. The same individuals, though so utterly regardless of the forms required in the United States for the recovery of losses from the underwriters there, are nevertheless very particular in having the authentication of Lloyd's agent to the survey of damaged goods (and vendue sales of the same) landed from English vessels in that port.

"*U. S. Consulate, Kingston, Ja.*, Jan. 28, 1847."

## REDUCTION OF IMPORT DUTIES IN DENMARK.

DEPARTMENT OF STATE, WASHINGTON, February 13, 1847.

Information has been received at this department, from the Charge d'Affaires of the United States at Copenhagen, under date of the 9th of December last, that a decree had just been issued by the Danish government, for the suspension, until further notice, of all import duties on seed grain, and rape-seed, and the reduction of the same on hulled grain and flour. The provisions of the ordinance are as follows:—

1. The import duties on seed grain, rape-seed, peas, and vetches, are abolished until further orders.

2. The import duties on peeled grain and flour are reduced, as follows:

*For hulled wheat,* per 100 lb. Danish, 1 rigs bank dollar 1 mark, money of Denmark, and 35 schellings, money of Sleswick and Holstein. Tare, 23 per cent on hogsheads, and 3 per cent on bags.

*For all other grain,* per 100 lb. Danish, 1 rigs bank dollar, 30 skillings, Danish currency, and 25 schellings, Sleswick and Holstein currency. Same tare as above.

*For flour of several kinds,* viz.: flour of barley, wheat, Indian corn, and potatoes, per 100 lb. Danish, 1 rigs bank dollar and 24 skillings, Danish currency, and 37½ schellings of the currency of Sleswick and Holstein.

All other sorts of flour, per 100 lb. 48 skillings Danish, and 15 schellings Sleswick and Holstein currency. Tare, the same as above.

The ordinance is applicable, not only to the Kingdom of Denmark, but also to the Duchies of Sleswick and Holstein.

*It goes into effect to-day, (December 9th, 1846.)

# JOURNAL OF BANKING, CURRENCY AND FINANCE.

## CONDITION OF BRANCHES OF THE STATE BANK OF INDIANA.

The following statement exhibits the condition of the Branches of the State Bank of Indiana, November 21, 1846:—

RESOURCES.

| Banks. | Loans. | Susp'd debt. | R'l estate. | East. Exch. | B'k bal'ces. | Specie. |
|---|---|---|---|---|---|---|
| Indianapolis, | $364,285 | $69,573 | $30,226 | $53,324 | $70,019 | $70,036 |
| Laurenceburg, | 376,195 | 35,283 | 22,584 | 85,337 | 59,653 | 84,222 |
| Richmond, | 200,581 | 26,343 | 5,141 | 40,130 | 68,817 | 67,086 |
| Madison, | 307,048 | 47,443 | 18,373 | 8,374 | 113,000 | 82,036 |
| New Albany, | 235,736 | 14,855 | 24,393 | ..... | 33,770 | 53,884 |
| Evansville, | 131,923 | 39,771 | 27,666 | 2,710 | 8,163 | 103,155 |
| Vincennes, | 155,311 | 36,732 | 20,242 | 60,322 | 11,962 | 113,064 |
| Bedford, | 104,362 | 79,264 | 9,708 | 19,234 | 2,266 | 75,000 |
| Terre Haute, | 152,253 | 54,624 | 20,070 | 68,108 | 9,881 | 108,504 |
| Lafayette, | 341,057 | 41,794 | 39,562 | 19,800 | 2,055 | 62,922 |
| Fort Wayne, | 264,186 | 52,396 | 40,596 | ..... | 52,888 | 76,087 |
| South Bend, | 123,615 | 62,273 | 67,614 | 11,590 | ..... | 51,848 |
| Michigan City, | 262,190 | 17,294 | 17,671 | 1,405 | 256 | 55,801 |
| Total, | $3,018,743 | $577,647 | $343,846 | $370,334 | $432,730 | $1,003,645 |

LIABILITIES.

| Banks. | Capital. | Circulation. | B'k bal's. | Deposits. | Sinking fund. | Surplus. |
|---|---|---|---|---|---|---|
| Indianapolis, | $219,900 | $376,892 | $1,867 | $59,291 | $6,595 | $46,796 |
| Laurenceburg, | 215,000 | 386,840 | 1,588 | 33,977 | 7,420 | 28,606 |
| Richmond, | 167,000 | 238,478 | 309 | 20,248 | 3,756 | 31,606 |
| Madison, | 212,550 | 363,709 | 8,992 | 68,950 | 28,854 | 19,567 |
| New Albany, | 163,850 | 193,085 | 22,421 | 24,437 | 1,431 | 32,946 |
| Evansville, | 151,866 | 224,890 | 4,296 | 17,973 | 1,085 | 12,984 |
| Vincennes, | 148,200 | 257,141 | 1,887 | 13,658 | 2,222 | 19,169 |
| Bedford, | 91,762 | 170,724 | 263 | 13,957 | 6,558 | 23,130 |
| Terre Haute, | 157,900 | 264,685 | 4,277 | 27,678 | 3,830 | 37,061 |
| Lafayette, | 187,750 | 361,117 | ..... | 81,185 | 8,411 | 71,980 |
| Fort Wayne, | 145,705 | 280,410 | 1,725 | 38,324 | 6,740 | 50,000 |
| South Bend, | 102,340 | 187,026 | 260 | 6,365 | 9,827 | 17,475 |
| Michigan City, | 120,000 | 228,800 | ..... | 3,945 | 2,808 | 22,240 |
| Total liabilities, | $2,083,824 | $3,533,797 | $47,886 | $409,989 | $89,535 | $413,563 |

## BELGIUM—DEPARTMENT OF FINANCE AT BRUSSELS.

The official article, (dated "Department of Finance, Brussels, January 13th, 1847,") of which the following is a translation, has recently been communicated to the Department of State, by the Charge d'Affaires of the United States at Brussels:—

INDEMNIFICATION FOR LOSSES OCCASIONED BY THE EVENTS OF THE WAR OF THE REVOLUTION.

"The Minister of Finance, in addition to his advertisement published under date of the 6th inst., informs the persons entitled to indemnification, adjudged according to the law of May 1, 1842, that the payment of the said indemnifications, which should begin in February, 1847, at the bureau of transfer of the public debt in the Department of Finance at Brussels, may be also made by the Directors of the Treasury, at Antwerp, Ghent, Bruges, Liege, Hasselt, or Namur.

"In consequence, the provisional titles issued by the committee of liquidation, may, from and after the same date of February 1, 1847, be deposited, duly invested with the signatures of the persons entitled for acquittal, and the requisite legalization, with the Directors of the Treasury, above-mentioned, to be exchanged subsequently for the definitive titles at 3 per cent, which are to be delivered in virtue of the law of December 24, 1846. On this deposit, a receipt shall be delivered for the provisional titles presented for payment, which shall be reproduced afterwards, in order to obtain the definitive titles.

"In the cases provided for by the 4th article of the royal decree of December 27, 1846, that is to say, when, in consequence of the decease or cession, the proprietors of the claims are no longer the same designated in the provisional titles, the persons interested are likewise to deposit documents proving those facts and others in justification of their rights.

"The payment of the claims subjected to attachment or opposition, can only be made at Brussels, and by the Department of Finance, in the bureau of transfer of the public debt."

J. MALON.

## BRITISH REVENUE FOR THE LAST TEN YEARS.

An account showing the amount of revenue received, and the expenditures; the capital of the debt, funded and unfunded; the annual charge of the debt; and the balances in the exchequer at the close of each year, for the period from 1836 to 1845, both years inclusive, derived from the "London Bankers' Almanac, for 1847:"—

| Years. | Revenue. | Expenditure. | Debt. | Charges. | Balances. |
|---|---|---|---|---|---|
| 1836..... | £52,949,397 | £50,819,305 | £788,398,570 | £29,243,599 | £6,049,372 |
| 1837..... | 50,663,353 | 51,319,113 | 786,319,738 | 29,489,571 | 4,127,973 |
| 1838..... | 51,375,520 | 51,720,748 | 785,373,740 | 29,260,238 | 4,594,884 |
| 1839..... | 51,927,495 | 53,440,287 | 786,512,734 | 29,454,062 | 3,707,425 |
| 1840..... | 51,850,083 | 53,444,053 | 787,468,075 | 29,381,718 | 3,858,465 |
| 1841..... | 52,363,949 | 54,465,318 | 790,874,608 | 29,450,145 | 3,653,810 |
| 1842..... | 51,244,335 | 55,223,873 | 791,250,440 | 29,428,120 | 1,390,059 |
| 1843..... | 56,945,043 | 55,501,739 | 790,576,392 | 29,269,160 | 4,716,019 |
| 1844..... | 58,459,751 | 55,103,645 | 787,598,145 | 30,495,459 | 6,254,113 |
| 1845..... | 57,690,704 | 53,873,062 | 785,053,022 | 28,253,872 | 8,452,090 |

For a tabular statement of the revenue of England, under each reign or administration, from 1066 to 1826, a period of 760 years, the reader is referred to the Merchants' Magazine, Vol, XVI., No. 3, for March, 1847, page 309.

## PRODUCT OF GOLD AND SILVER IN AMERICA.

Michael Chevalier, in an elaborate article, first published in the Paris "Revue des Deux Mondes," gives the following as the total annual product of gold and silver in America:—

| | GOLD MINES. Weight. *Kil.* | Value. *Francs.* | | SILVER MINES. Weight. *Kil.* | Value. *Francs.* |
|---|---|---|---|---|---|
| United States,..... | 1,800 | 6,192,000 | Mexico,..... | 396,990 | 86,793,000 |
| Mexico,..... | 2,957 | 10,184,000 | New Granada,.... | 4,887 | 1,086,000 |
| New Granada,..... | 4,954 | 17,062,000 | Peru,..... | 113,158 | 25,146,000 |
| Peru,..... | 708 | 2,439,000 | Bolivia,..... | 52,044 | 11,554,000 |
| Bolivia,..... | 444 | 1,529,000 | Chili,..... | 33,592 | 7,457,000 |
| Brazil,..... | 2,500 | 8,640,000 | Other States,..... | 20,000 | 4,440,000 |
| Chili,..... | 1,071 | 3,689,000 | | | |
| Other States,..... | 500 | 1,722,000 | Total,..... | 614,641 | 136,406,000 |
| Total,..... | 14,954 | 51,134,000 | | | |

## TARIFF OF DUTIES BY THE STAMP LAW OF MARYLAND.

Tariff of duties imposed by the stamp act of Maryland, on promissory notes, bills of exchange, specialities, and other instruments of writing, on and after May 10, 1845:—

| | | | |
|---|---|---|---|
| Over $100 to $200..... | $0 10 | Over $3,000 to $4,000..... | $2 00 |
| " 200 to 300..... | 0 15 | " 4,000 to 5,000..... | 2 50 |
| " 300 to 500..... | 0 25 | " 5,000 to 7,000..... | 3 50 |
| " 500 to 1,000..... | 0 50 | " 7,000 to 8,000..... | 4 00 |
| " 1,000 to 1,500..... | 0 75 | " 8,000 to 10,000..... | 5 50 |
| " 1,500 to 2,000..... | 1 00 | " 10,000..... | 6 00 |
| " 2,000 to 3,000..... | 1 50 | | |

On notes or instruments of and under $100, no stamp is required.

## STATISTICS OF THE "UNIFORM SYSTEM OF BANKRUPTCY," OF 1841.

*Summary statement exhibiting the number and amount of applicants for relief under the Bankrupt Act of* 1841, *and the proceedings had thereon, in the several district courts of the United States, as far as the same have been received at the Department of State.*

| Districts. | No. of applicants for relief. | Number Disch'ged fr'm debts. | No. refused disch'e | Applications still pending. | No. creditors given in by applicants. | Aggregate amount of debts given in by the applicants. | Aggregate amount of property surrendered by the applicants. | Per cent p'd in cents and fractions. | Aggregate costs of judicial proceedings. |
|---|---|---|---|---|---|---|---|---|---|
| Maine | 3,478 | 2,456 | 27 | 630 | 83,227 | $16,539,300 01 | $5,440,511 90 | 0.46 | ..... |
| New Hampshire | 1,792 | 1,641 | 49 | 102 | 49,761 | 3,752,623 19 | 1,973,334 42 | 0.84 | $37,325 00 |
| Massachusetts | 3,250 | 3,114 | 62 | .... | 95,154 | 24,752,932 81 | 15,468,546 69 | 4 | 98,330 52 |
| Connecticut | 1,537 | 1,413 | 7 | 55 | 33,814 | 10,469,273 00 | ..... | 0.71 | 6,148 00 |
| Northern District of New York | 5,598 | 4,756 | 39 | 803 | 171,103 | 51,556,405 25 | 1,167,487 94 | 13.66 | 34,466 00 |
| Southern District of New York | 2,550 | 2,121 | 389 | 429 | 109,485 | 120,580,415 00 | 140,417 82 | 1 | 110,000 00 |
| New Jersey | 810 | 769 | 25 | 16 | 33,673 | 17,811,303 47 | 19,186 79 | 0.97 | 11,413 27 |
| Eastern District of Pennsylvania | 1,799 | 1,438 | 16 | 314 | 65,678 | 31,965,723 68 | 99,253 20 | .... | 11,295 20 |
| Maryland | 490 | 346 | 17 | 108 | 12,962 | 5,745,451 49 | 1,903,250 69 | 1 | 1,281 50 |
| Eastern District of Virginia | 1,189 | 913 | 15 | 261 | 23,468 | 8,713,116 10 | 20,783 00 | .... | 29,005 73 |
| Western District of Virginia | 1,566 | 1,504 | 4 | 12 | 78,101 | 3,957,032 66¼ | 23,985 49 | 0.6 | 43,197 68 |
| South Carolina | 277 | 206 | 4 | 66 | 8,113 | 5,598,821 00 | 817,907 00 | 2.18 | 14,234 00 |
| Northern District of Alabama | 821 | 780 | 4 | 37 | 26,335 | 6,048,162 00 | 26,732 00 | 0.25 | 31,828 95 |
| Southern District of Alabama | 718 | 680 | 7 | 31 | 24,642 | 25,022,243 64 | 100,000 00 | .... | 23,882 25 |
| Southern District of Mississippi | 872 | 861 | . | 3 | 22,772 | 46,156,542 40 | 6,332,666 64 | 0.006 | 23,588 10 |
| Middle District of Tennessee | 1,313 | 1,121 | 1 | 221 | 35,248 | 7,014,840 00 | 315,678 00 | 4.5 | 40,403 00 |
| Kentucky | 2,373 | 1,387 | 14 | 972 | 81,139 | 16,241,171 48 | 5,499,171 75 | 0.8 | ..... |
| Illinois | 1,592 | 1,319 | 1 | 264 | 48,728 | 14,498,396 23 | 3,569,524 89 | 0.07 | 29,481 25 |
| Arkansas | 178 | 104 | 10 | 64 | 3,847 | 1,811,674 50 | 188,966 87 | 0.19 | 3,506 22 |
| Michigan | 671 | 645 | 1 | 12 | 22,408 | 16,731,685 00 | 159,674 79 | 0.027 | 41,810 54 |
| East Florida | 27 | 23 | 1 | ... | 727 | 324,523 82 | 247,117 33 | 1 | 500 00 |
| West Florida | 16 | 14 | 1 | 1 | 249 | 114,404 39 | 14,897 00 | 7.66 | 480 00 |
| Southern District of Florida | 3 | 3 | . | . | 44 | ..... | 5,225 00 | .... | ..... |
| Wisconsin | 315 | 276 | 39 | . | 7,644 | 2,552,444 00 | 2,613 65 | 0.05 | 5,241 08 |
| Iowa | 223 | 192 | 31 | . | 5,130 | 844,552 88 | 159,017 53 | 0.27 | 4,601 16 |
| Washington county, D. C | 248 | 184 | 2 | 62 | 5,325 | 1,940,412 81 | ..... ... | .... | ..... |
| Alexandria county, D. C | 33 | 25 | . | 5 | 826 | 191,164 20 | 1,356 74 | 9.07 | 303 19 |
| Total from 27 States and Territories, | 33,739 | 28,291 | 766 | 4,468 | 1,049,603 | $440,934,615 01 | $43,697,307 13 | | $602,322 64 |

# RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

## THE READING RAILWAY—THE GREAT FREIGHT ROAD OF THE U. S.

TO THE EDITOR OF THE MERCHANTS' MAGAZINE AND COMMERCIAL REVIEW.

The friends of railways, and those who have advocated their capacity to carry bulky freight, at cheap rates, must be pleased with the late able report of Mr. John Tucker, President of the Philadelphia and Reading Railway, with the full and ample tables, furnished by the engineer and superintendent of motive power, Mr. G. A. Nicholls, of the cost and details of this great work. It is now completed with a double track, and furnished with engines and cars, equal to the transportation of 2,000,000 tons per annum. The engines belonging to this road, if extended in line, with their several trains of cars each touching the other, would extend over a distance of 10 miles. The depot, at Richmond on the Delaware, covers some 60 acres of land, with wharves to receive and load some 300 vessels. The coal is shot down into the hold; a single train, in its regular business, being sufficient to load a vessel of 500 tons. There have been trains of 166 cars, conveyed by a single engine, that have reached 1,197 tons, of 2,240 lbs. each.

One of the numerous buildings attached to this road, is capable of holding 20 locomotives and their tenders, with every convenience for entering, for examination, watering, &c., &c. In fact, the general superintendent's report, shows the most complete freight organization of any railway in this country, and in many particulars it will compare with the best English railways. It must be seen, to form any conception of its adaptation to do business at cheap rates. A good and perfect machine, like the Reading Railway, cannot be obtained without paying for it, as the following statement of its cost will show.

This company, like many railways in this country, has had to encounter violent opposition from opposing interests. Its bold—at the time, called visionary—projectors, commenced with a capital entirely inadequate ($3,120,000) to furnish even one track. To make a railway alongside the Schuylkill Canal, was considered, a few years back, by some of the best men in Philadelphia, the height of folly. The Schuylkill Canal had been so prosperous, as to advance its dividends to 20 per cent, and its stock was $360 for $100; and it was considered impossible that a railway could contend with it. Reduced rates of toll were fixed on the canal, at the commencement of the railway; and it was confidently predicted, by a distinguished engineer, "that the railway could not transport 800,000 tons of coal over it, without the edge rail on the road being crushed—destroyed." Under all these difficulties, and those attendant on borrowing money abroad and in sagacious New England, who took largely of their loans and built their iron freight cars and engines, the directors persevered, and have fully redeemed all their pledges and predictions to the public. They have met the canal, in transportation, at even less rates, for freight and toll of coal, than those first named by this interest to drive them from the field. The result is, the canal has intermitted its dividends for the last four years; the stock is much below par; while the railway is steadily recovering itself, and appears to have earned a nett dividend of 12½ per cent on its capital, besides paying the interest ($571,119) on its loans and indebtedness, amounting to $8,000,000.

That some idea may be formed of the magnitude of this private enterprise, it is only necessary to state, that the road bed, superstructure, motive power, depot, and lands, cost, for 94 miles of double road, and numerous branches up *into* the mines, which gives it great advantages, $11,589,696.

| | |
|---|---|
| Of this sum, the road bed and superstructure, for a double track, with numerous turn-outs, cost | $8,912,991 |
| The locomotives and cars, | 2,071,279 |
| Real estate and the right of way, | 321,846 |
| Depots, &c., | 205,325 |
| Iron, and materials on hand, | 58,255 |
| Of locomotives, the company own | 72 |
| Of freight cars, principally iron, with the average capacity to each, of 4¼ tons, | 4,559 |
| Of passenger cars, | 19 |

The estimate made by the directors, of the amount of coal the company would be able to bring, during the year 1846, with their estimate for receipts, was ridiculed in the public papers, and stated to be utterly impossible and deceptive.

| | | |
|---|---|---|
| The estimate of the directors for gross receipts, 1846, was..... | | $1,725,000 |
| The actual receipts, from the freight of 1,188,258 tons of coal, (equal to a rate of $1 34 per ton, for 94 miles,) were.... | $1,600,667 | |
| From 88,641 passengers,..... | 141,749 | |
| Freight of merchandise, up and down, 74,971 tons,..... | 137,583 | |
| United States mail, &c.,..... | 9,714 | |
| | | 1,889,713 |
| Excess of receipts over the estimates,..... | | $164,713 |

The coal fell a little short of the estimated quantity, 1,250,000 tons.

The increase of the receipts over those of 1845, when the motive power was entirely inadequate, was derived—

| | | | |
|---|---|---|---|
| From the transportation of coals,..... | $713,728 or | 80 per cent. | |
| " " merchandise,..... | 76,995 | 127 | " |
| " " passengers,..... | 38,337 | 37 | " |
| Total,..... | $829,060 | | |

It appears,—after paying all expenses relating to the road, $862,320; interest on loans, $571,119; taxes, $16,380; commissioners and sundries, $48,003,—there was a surplus of nett earnings of the road, of $402,292, or equal to 12¾ per cent on the amount of the stock issued—62,400 shares, $3,120,000.

This is a result, that must put croakers against railways to the blush. But for this road, the price of coal in the market would, in all probability, have been doubled in price the last season. By the construction of this road, the consumers of coal, during the last two seasons, have saved at least $5,000,000. The Delaware and Hudson, the Morris, the Lehigh, and the Schuylkill Canals—great works, it is true, in their day, but open only six to seven months in the year—taxed even to their utmost capacity, would be inadequate to supply the half of the present demand for coal. This demand, it is estimated, is increasing at the rate of full 20 per cent per annum.

Such is the increasing demand for coals, with the increase of manufactures and population, when furnished at $3 25 to $4—a price that will pay the miner, forwarder, and 7 per cent on the railway or canal that transports it—that there will be ample business for the Schuylkill Canal and Reading Railway, with the addition of several others that will be wanted ere there is capital to complete them. The increase of coal brought to market last season, was all transported by the railway. The great difficulty was, to get the coal mined, and to furnish empty cars to the miners. This difficulty, owing to the increase of iron cars before the close of the season, (each car carrying five tons,) is now mainly remedied by the increase of 1,600 new iron cars, the last season, from Boston. As the road, in the month of June, carried over it 150,000 tons, or at the rate of 1,800,000 tons per annum, it will be perceived there will be no difficulty, now a double track is completed, with suitable turn-outs up into the mines and at the depot at Richmond, to transport, for 1847, from 1,500,000 to 2,000,000 tons. Even this quantity may be doubled, by an increase of motive power.

It appears, the whole amount of tonnage carried over the Reading Railroad, for the last year, up to 1st December last, was 1,515,473 tons. The amount of tons of coal (at 2,240 lbs. to the ton) transported, from the commencement to 1st December, was 2,693,975. Total amount of tonnage transported, from the commencement to 1st December last, 3,703,521 tons.

This table of transportation is introduced in the report, to show, that the edge iron rail was not "*crushed and destroyed by the transportation of* 800,000 *tons*," so gravely predicted, and published in the Railroad Journal, Franklin Institute, and other papers, from respect, no doubt, to its distinguished author. He appears to have been as near the truth as Dr. Lardner, when he established, in his own mind, that a steamboat could not carry coal sufficient to raise steam to propel herself across the Atlantic. Instead of the rails being crushed and destroyed, so boldly put forth, (thus striking at the root and prosperity of all railways,) Mr. Nicholls, the engineer and superintendent, states that, after a careful examination, "*it is found equal to four-tenths of a cent per ton, on the tonnage of the road for a year, which confirms our predictions on this subject.*"

Here we have a railway, of near 100 miles, built expressly to carry freight, that has cost 50 per cent more than the Erie and Champlain Canals originally cost, of 450 miles in length. The railway, the last year, it appears, carried over it, comparatively, more tonnage than the Erie Canal, with all its tributaries and branches, numbering 610 miles; and, what is singular, at a rate much below the lowest price ever charged on the Erie Canal.

In fact, the rate charged, for a long time the last and previous season, on the railway, of $1 25 to transport a ton of coal from the mines and carry back to the miners the empty cars, (188 miles,) is less than the tolls exacted by the State of New York, on merchandise. This charge for toll, is entirely independent of that made by the forwarder on the canal. This fact disproves completely the idea, so current, that railways cannot carry freight profitably, or compete with canals. If so, why not permit them to carry freight the entire year, if subject to a sufficient toll, to pay off the canal debt in a reasonable time? Railways would materially aid the agricultural interests of this State, thus enabling them to send *daily* supplies of fresh provisions and vegetables to the New York markets. By railways, we could retrieve the value of our lands, that have been reduced, particularly in the wheat districts, by the opening of the western prairies. We have taxed ourselves, to benefit our neighbors, while we have left undone many things we should do, relative to railways.

That some idea may be formed of the cost, at which a good railway, such as the Reading, can transport a ton of goods per mile, and return the empty cars to the miners, to be filled, I quote the following, from Mr. Nicholls' report:—

"The cost of hauling coal, the past year, is shown in detail, in statement H. It amounted to 38.39 cents per ton. The chief causes of this increased cost, of 1.8 cents per ton over the last year, (when it was 35.59 cents for 94 miles,) are, the decrease of coal tonnage, from the cessation of business of some of the lateral railways, in consequence of the freshet in May; and the falling off in demand for coal, in August and September, thus diminishing our business, while the causes were too temporary to justify a discharge of men."

It will thus be perceived, that the cost of *motive power*—even on the magnificent scale of the Reading, if it were applied to such a railway as can be constructed from Buffalo to tide-water, on a line to be located, level or descending, and with a distance within 320 miles, defying, with receipts from passengers, any competition from the enlarged canal—would not cost on a barrel of flour, say at 50 cents per ton, per 100 miles, or $1 60 per ton.

But I am admonished to close my extracts from these interesting reports. Their full publication will be interesting to many of your readers, and prove that I am not so heterodox, as I know I am considered by the supposed orthodox canal interest, that has so long ruled and governed New York, while our shrewd neighbors went to the windward in commerce, by the construction of railways; having, in their profits on the same, forgot the loss of the entire capitals they have sunk, in the Middlesex, the Blackstone, and the Farmington canals.

J. E. B.

## TRANSIT OF CATTLE ON RAILROADS.

Steam navigation, says Chambers' (Edinburgh) Journal, is acknowledged to have done much for Ireland, Wales, Scotland, and other quarters, in the way of cheap and rapid transit of sheep and cattle to market—a speedy and comparatively inexpensive voyage being now often substituted for one of a protracted nature, or for a fatiguing and ruinous journey by land. An additional convenience to the store farmer is in course of being achieved by railway transit. On this subject we find the following observations in a late number of the Railway Register:—

"Mr. Hyde Clark reckons the average loss upon all distances by driving, and consequent saving by conveyance on railway, at 5 lbs. per quarter for bullocks, or 20 lbs.; 2 lbs. per quarter, or 8 lbs. for sheep; and 2½ lbs. per quarter, or 10 lbs. for hogs. This is believed to be a low estimate. Mr. H. Handley, M. P., one of the heads of the agricultural interest, calculates the loss on driving from Lincolnshire to London, at 8 lbs. in weight, and 25s. to 30s. in money for sheep. The time for sheep he calculates at 8 days for getting up to market, which is equivalent to three or four market days, during which the chances of the market may be much affected. The promoters of the Northern and Eastern Railway, in their prospectus, calculate the loss on driving a hundred miles, at 40s. for bullocks, and 5s. for sheep. They state the supply of the London market at 150,000 beeves, and 1,500,000 sheep per annum, the saving on which, by railway conveyance, they set down at £675,000. This saving might be fairly taken at 40 lbs. for bullocks, 8 lbs. for sheep, and 20 lbs. for swine; which would give a gross saving of pounds of animal food on the present number conveyed on railways, as follows:—on 220,000 cattle, 8,800,000 lbs. of beef; on 1,250,000 sheep, 10,000,000 lbs. of mutton; on 550,000 swine, 11,000,000 lbs. of pork. This would give a total of 29,800,000 lbs. of animal food economised, even at the present moment, in the infancy of the railway system."

## MASSACHUSETTS RAILROADS, IN 1846.

FREEMAN HUNT, Esq.—Dear Sir—I send you an abstract of the Annual Reports of the Railroads of Massachusetts, made to the Legislature of this Commonwealth, carefully compiled, and which, if inserted in your valuable journal, I doubt not will gratify many of its numerous readers. Yours truly, B.

| Name. | Length. | Cost. | RECEIPTS. From pass'gers. | From frei't, &c. | Total. | EXPENSES. Road bed. | Motive power. | Miscellaneous. | Total. | Nett income. | NUMBER OF MILES RUN. Pass'ger trains. | Freight trains. | Total. | Nett inc'e. p. ct. | Rec'ts p. m. | Exp. p. m. | Inc. p. mi. | Number pass'gers carried in cars. | Tons merchdz. carried in cars. | Number passengers carried one mile. | Tons merchandize carried one mile. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worcester..... | 45 | $3,485,232 | $279,793 | $274,919 | $554,712 | $47,445 | $67,263 | $169,168 | $283,876 | $270,836 | 195,692 | 99,291 | 294,983 | 7.77 | 1.88 | 0.96 | 0.92 | 470,319 | 179,325 | 12,766,522 | 6,941,291 |
| Western..... | 155 | 8,185,788 | 389,861 | 488,556 | 878,417 | 63,267 | 89,453 | 239,159 | 412,679 | 465,738 | 215,369 | 358,587 | 573,956 | 5.68 | 1.53 | 0.72 | 0.81 | 265,664 | 166,394 | 14,273,181 | 15,748,223 |
| Nor. & Wo'ster. | 68 | 2,178,788 | 150,385 | 91,535 | 241,910 | 106,446 | .... | 11,941 | 118,387 | 123,523 | 143,367 | 53,925 | 197,292 | 5.66 | 1.22 | 0.60 | 0.62 | ..... | ..... | ..... | ..... |
| Connect. River. | 36 | 1,010,542 | 39,756 | 18,491 | 58,247 | 4,400 | 2,585 | 14,768 | 21,753 | 36,494 | 59,825 | 2,700 | 62,525 | 3.61 | 0.93 | 0.35 | 0.58 | 185,190 | 198,214 | 1,369,800 | 198,214 |
| Pittsf. & N Ad'ms* | 19 | 365,420 | ..... | ..... | ..... | .... | .... | ..... | ..... | ..... | ..... | .... | ..... | .... | .... | .... | .... | ..... | ..... | ..... | ..... |
| Berkshire†..... | 21 | 500,000 | ..... | ..... | 35,000 | .... | .... | ..... | ..... | ..... | 7,644 | 13,104 | 20,748 | 7 00 | 1.74 | .... | 1.74 | 13,934 | ..... | ..... | ..... |
| Old Colony.... | 37 | 1,397,059 | 101,858 | 23,853 | 125,711 | 8,604 | 6,273 | 42,353 | 57,230 | 68,481 | 63,073 | 42,392 | 105,465 | 4.90 | 1.19 | 0.54 | 0.65 | 913,144 | 16,197 | 3,459,991 | 299,394 |
| Providence.... | 41 | 2,109,455 | 230,486 | 130,389 | 360,875 | 25,440 | 34,302 | 109,937 | 169,679 | 191,196 | 140,874 | 58,054 | 198,928 | 9.06 | 1.81 | 0.85 | 0.96 | 476,515 | 82,192 | 7,453,177 | 1,962,789 |
| Stoughton..... | 5 | 93,970 | 4,707 | 4,029 | 8,736 | 694 | 599 | 2,707 | 4,000 | 4,736 | ..... | ..... | 4,992 | 5.03 | 1.75 | 0.80 | 0.95 | ..... | ..... | ..... | ..... |
| Taunton..... | 11 | 293,449 | 36,283 | 20,940 | 57,223 | 6,775 | 3,380 | 14,904 | 25,059 | 32,164 | 20,548 | 7,942 | 28,490 | 10.96 | 2.01 | 0.88 | 1.13 | 117,945 | 25,607 | 1,290,951 | 281,678 |
| New Bedford.. | 20 | 456,441 | 64,903 | 20,447 | 85,350 | 11,881 | 6,110 | 23,388 | 41,379 | 43,971 | 59,188 | 19,610 | 78,798 | 9.56 | 1.08 | 0.53 | 0.55 | 94,167 | 11,013 | 1,516,418 | 918,817 |
| Fall River..... | 42 | 828,083 | 29,520 | 6,183 | 35,703 | 3,501 | 3,973 | 17,894 | 25,398 | 10,335 | 26,750 | 23,160 | 48,910 | 1.24 | 0.73 | 0.52 | 0.21 | 59,382 | 5,257 | ..... | ..... |
| Fitchburg..... | 49 | 1,875,319 | 126,838 | 157,407 | 284,245 | 17,440 | 17,396 | 80,211 | 115,047 | 169,198 | 140,424 | 59,888 | 200,312 | 9.02 | 1.42 | 0 57 | 0.85 | 327,034 | 201,800 | 5,981,872 | 3,351,310 |
| Lexington‡.... | 7 | 177,349 | ..... | ..... | ..... | ..... | .... | ..... | ..... | ..... | ..... | ..... | ..... | .... | .... | .... | .... | ..... | ..... | ..... | ..... |
| Lowell..... | 26 | 1,940,418 | 185,235 | 198,867 | 384,102 | 42,301 | 32,883 | 117,050 | 212,234 | 171,868 | 134,633 | 66,208 | 200,841 | 8.85 | 1.91 | 1.06 | 0.85 | 400,886 | 222,831 | 8,411,457 | 5,626,777 |
| Nashua..... | 14 | 500,000 | 39,093 | 68,404 | 127,497 | 24,941 | 10,054 | 35,285 | 70,280 | 57,217 | 28,515 | 20,350 | 48,870 | 11.44 | 2.63 | 1.44 | 1.19 | 192,972 | 126,502 | 2,678,513 | 1,835,189 |
| Boston & Maine | 72 | 2,639,746 | 212,094 | 119,344 | 331,438 | 20,077 | 25,096 | 116,864 | 163,037 | 169,401 | 204,401 | 73,228 | 277,630 | 6.44 | 1.19 | 0.58 | 0.61 | 469,426 | 61,599 | 9,474,241 | 3,074,950 |
| Eastern..... | 38 | 2,290,869 | 310,061 | 61,277 | 371,338 | 21,432 | 14,778 | 101,594 | 137,804 | 233,534 | 201,696 | 51,426 | 253,052 | 10.51 | 1.46 | 0.54 | 0.92 | 786,756 | 38,013 | 12,573,386 | 1,090,462 |
| | 707 | 30,244,927 | 2,220,863 | 1,684,641 | 3,940,504 | 424,644 | 334,145 | 1,098,023 | 1,856,812 | 2,048,692 | 1,641,929 | 948,880 | 2,595,801 | 6.89 | 1.51 | 0.72 | 0.79 | 4,082,934 | 1,334,944 | 81,950,809 | 40,634,074 |

* Let to Western Railroad. † Let to Housatonic Railroad. ‡ Let to Fitchburg Railroad.

## UNITED STATES NAVAL AND MAIL STEAMSHIPS.

The following is an authentic copy of an act providing for the building and equipment of four naval Steamships, which passed both Houses of Congress, and was approved by the President of the United States, on the 3d of March, 1847:—

AN ACT PROVIDING FOR THE BUILDING AND EQUIPMENT OF FOUR NAVAL STEAMSHIPS.

*Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled—*

That the President of the United States be, and he is hereby, authorized to cause to be built and equipped four first class sea-going Steamships, to be attached to the Navy of the United States, and that one million of dollars be, and is hereby appropriated for that purpose, to be paid out of any money in the Treasury not otherwise appropriated.

Sec. 2. *And be it further enacted*, That from and immediately after the passage of this Act, it shall be the duty of the Secretary of the Navy to accept, on the part of the Government of the United States, the proposals of E. K. Collins and his associates, of the city of New York, submitted to the Postmaster-General, and dated Washington, March sixth, eighteen hundred and forty-six, for the transportation of the United States mail between New York and Liverpool, and to contract with the said E. K. Collins and his associates, for the faithful fulfilment of the stipulations therein contained, and in accordance with the provisions of this Act.

Sec. 3. *And be it further enacted*, That the Steamships to be employed by the said E. K. Collins and his associates, in the transportation of the United States mail between New York and Liverpool, shall be constructed under the inspection of a Naval Constructor in the employ of the Navy Department, and shall be so constructed as to render them convertible, at the least possible cost, into war steamers of the first class; and that each of said Steamers shall receive on board four passed Midshipmen of the United States Navy, who shall serve as watch officers, and be suitably accommodated without charge to the Government; and the said Steamers shall also receive on board and accommodate, without charge to the Government, one agent, to be appointed by the Postmaster-General, who shall have charge of the mails to be transported in the said Steamships.

Sec. 4. *And be it further enacted*, That from and immediately after the passage of this Act, it shall be the duty of the Secretary of the Navy to contract, on the part of the Government of the United States, with A. G. Sloo, of Cincinnati, for the transportation of the United States mail from New York to New Orleans, twice a month and back, touching at Charleston, (if practicable,) Savannah and Havana; and from Havana to Chagres and back, twice a month; the said mail to be transported in Steamships of not less than fifteen hundred tons burthen, and propelled by engines of not less than one thousand horse power each, to be constructed under the superintendence and direction of a Naval Constructor in the employ of the Navy Department, and to be so constructed as to render them convertible, at the least possible expense, into war Steamers of the first class; and that the said Steamships shall be commanded by officers of the United States Navy not below the grade of Lieutenant, who shall be selected by the contractor, with the approval and consent of the Secretary of the Navy, and who shall be suitably accommodated without charge to the Government. Each of said Steamers shall receive on board four passed Midshipmen of the United States Navy, who shall serve as watch officers, and be suitably accommodated without charge to the Government; and each of the said Steamers shall also receive on board and accommodate, without charge to the Government, one agent, to be appointed by the Postmaster-General, who shall have charge of the mail to be transported in said Steamers: *Provided*, The Secretary of the Navy may, at his discretion, permit a Steamer of not less than six hundred tons burthen, and engines in proportion, to be employed in the mail service herein provided for between Havana and Chagres: *Provided, further*, That the compensation for said service shall not exceed the sum of two hundred and ninety thousand dollars, and that good and sufficient security shall be given for the faithful fulfilment of the stipulations of the contract.

Sec. 5. Officers, troops, freight, &c. of the United States, to be received on board at one-half the ordinary charge.

Sec. 6. The Secretary of the Navy may advance $500,000 for the construction of the vessels.

Sec. 7. Mr. Sloo is to receive $280,000 for mail transportation.

Sec. 8. *And be it further enacted*, That it shall be the duty of the Secretary of the Navy to contract, on behalf of the Government of the United States, for the transportation of the mail from Panama to such port as he may select in the Territory of Oregon, once a month each way, so as to connect with the mail from Havana to Chagres across the

Isthmus: said mail to be transported in either steam or sailing vessels, as shall be deemed most practicable and expedient.

SEC. 9. *And be it further enacted*, That it shall be the duty of the Secretary of the Navy to provide, in the contracts authorized by this Act, that the Navy Department shall at all times exercise control over said Steamships, and at any time have the right to take them for the exclusive use and services of the United States, and to direct such changes in their machinery and internal arrangements as the Secretary of the Navy may require; due provisions being made in the said contracts for the mode of ascertaining the proper compensation to the contractors therefor.

## CANALS AND OTHER PUBLIC WORKS OF OHIO.

We publish below an authentic statement of cost, revenue, deficits, &c., of the canals and other public works of Ohio, for 1846:—

| | Length. | Total cost. | Cost per mile. | Gross receipts. | Interest. | Deficit. |
|---|---|---|---|---|---|---|
| Ohio Canal and branches..... | 337 | $4,695,203 | $15,933 | $336,339 | $281,712 | $14,743 |
| Muskingum Improvement..... | 91 | 1,627,318 | 17,882 | 35,104 | 97,639 | 97,840 |
| Walhonding Canal..... | 25 | 607,268 | 24,290 | 1,190 | 36,436 | 36,620 |
| Hocking Canal..... | 56 | 975,481 | 17,419 | 5,383 | 58,528 | 56,798 |
| Miami and Warren Canal..... | 85 | 1,237,552 | 14,559 | 93,057 | 74,253 | 35,541 |
| Miami Extension Canal..... | 139 | 3,168,965 | 22,798 | 27,812 | 190,137 | 181,425 |
| Wabash and Erie Canal..... | 90 | 3,057,177 | 33,968 | 113,414 | 183,430 | 78,151 |
| Totals..... | 810 | 15,368,964 | 18,755 | 612,303 | 922,137 | 501,126 |

The nett proceeds of the canals fall a fraction short of 3 per cent on the cost. Interest has been computed at 6 per cent, which would be about the average—the first loan at 5, and the last at 7 per cent—balance at 6.

The Ohio canal has 25 miles of navigable side-cuts and feeders, to wit:—Trenton feeder, 3; Walhonding, 1½; Dresden side-cut, 2½; Granville feeder, 6; Columbus, 12—which are included in the estimate. The Miami Extension Canal includes the Sidney feeder, 13 miles; St. Mary's and Reservoir, 11. The Wabash and Erie has a side-cut to Maumee, 2 miles; one to Toledo, 1 mile. The first is included in the estimate, the other escaping attention.

## PACIFIC LINE OF STEAMERS:

FOR THE TRANSPORTATION OF PASSENGERS, LETTERS AND MERCHANDISE.

Recent advices from Panama state that the arrangements of the Pacific line of steamers are now complete for the transmission of passengers, letters and merchandise, to and from the Pacific. Steamers leave England on the 3d of every month, and arrive at Chagres about the 19th. Here all and everything for the Pacific is carried over the isthmus on mules, in from six to ten hours. On the other side a steamer is in readiness for conveyance to Peru, Ecuador or Chili. These steamers leave Panama on the 25th, arrive at Callao, Peru, on the 7th, and Valparaiso on the 24th, stopping at fourteen intermediate ports along the coast. The distance between Panama and Valparaiso is 3,250 miles, and is accomplished by three steamers in thirty days, including all the stoppages, which occupy from six to eight hours at each place. The prices of passage are as follows:—

| | | |
|---|---|---|
| From Panama to | Guayaquil..... | $100 |
| " " | Callao..... | 150 |
| " " | Valparaiso..... | 200 |

Letters are charged 25 cents every half ounce. For the commencement and establishment of this great undertaking, the world is indebted to Mr. Wheelwright, *a Yankee*. He has labored for this object during the last twelve years, and is now reaping the profits of his untiring industry. Two engineers, employed by the Republic of New Grenada, are now surveying a road from Porto Bello to Panama, in order to facilitate the transportation of goods to the Pacific.

# JOURNAL OF MINING AND MANUFACTURES.

## THE WEST POINT FOUNDRY AT COLD SPRING.

"THE WEST POINT FOUNDRY" was originally established by the association of that name, in 1817. Since the expiration of their charter, it has been leased by GOUVERNEUR KEMBLE, Esq., by whom it is now conducted on his own account. The capital originally invested, was $100,000. The establishment consists of 2 moulding-houses, comprehending together an area of 300 feet in length, by 45 feet in breadth, with 3 air furnaces and 3 cupola furnaces, with 12 cranes of various power, from 4 to 15 tons. The boring-mill contains 10 beds for boring guns and mortars, and 1 for cylinders, with 15 lathes, 4 planing machines, 1 slitting, and various drilling machines. The blacksmith shop contains 3 trip-hammers, 1 for large shafts of 8 tons weight; 2 heating furnaces, and about 20 smiths' fires, with 1 crane of 20 tons power, and others of less strength. The principal fitting shop is about 100 by 50 feet, and contains 3 cranes; the second shop, 30 by 50 feet, with 1 crane. The boiler shop is 100 by 40 feet. There is besides, a brass foundry, pattern shop, and various works connected with the business, and a blast furnace 42 feet high. The wages and materials vary according to the demand—the wages, from $140,000 to $180,000 per annum; the materials, from $250,000 to $350,000 per annum; the finished work, from $450,000 to $650,000 per annum; the number of hands employed, from 300 to 500, the present number being about 400, with an average wages of about $1 50 per diem.

## THE UNION WHITE LEAD COMPANY.

The works of this company are located in the city of Brooklyn, on Long Island, and cover about eighteen lots of ground, embracing both corners of Bridge and Front, and Bridge and Water-streets. This manufactory consumes about 3,000,000 pounds of pig lead, and 45,000 gallons of linseed oil per annum. The cost of these materials fluctuates with the market, which varies considerably; but taking as an average 3½ cents per pound for lead, and 70 cents per gallon for oil, the annual cost would be $136,500. The company employ about 70 men as laborers, coopers, and engineers, their wages amounting to about $25,000 per annum. The men employed in the factory work ten hours per day. The lead manufactured by this company is of an excellent quality. The office and place of business of the corporation, is at 175 Front-street, New York.

## CORNWALL AND SWANSEA MINES.

The "West Britain and Cornwall Advertiser," for January 15, 1847, furnishes a list of the mines whose produce has been sold at the Copper Ore Ticketings in Cornwall and Swansea, in ore, for the year ending December 30th, 1846. From this table it appears that there were sold, at Cornwall, 150,413 tons, amounting to £796,182. This return shows a falling off in the staple product of the country, in the past year, of not less than 12,126 tons of copper ore, and a decrease in the amount of sales of £123,751 19s. 6d. The produce of mines, sold at the Ticketings at Swansea, for the year ending December 31, 1846, was 58,456 tons ore, for £668,267 1s. This account exhibits a decrease in the quantity of ore sold at Swansea, in 1846, as compared with 1845, of 8,748 tons of ore, and, in the amount of money, of £109,594 18s. 6d., which, added to the deficiency in Cornwall, makes a total of 20,924 tons of ore, and, in money, £233,346 16s.

## STATISTICS OF LOWELL MANUFACTURES, COMPILED FROM THE MOST AUTHENTIC SOURCES.—JANUARY, 1847.

| Corporations. | Merrimack Manuf. Co. | Hamilton Manuf. Co. | Appleton Company. | Lowell Manuf. Co. | Middlesex Manuf. Co. | Suffolk Manuf. Co. | Tremont Mills. | Lawrence Manuf. Co. | Lowell Bleachery. | Boott Cotton Mills. | Mass. Cotton Mills. | Prescott Manuf. Co. | Lowell Machine Shop. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Incorporated | 1822 | 1825 | 1826 | 1828 | 1830 | 1830 | 1830 | 1830 | 1832 | 1835 | 1839 | 1844 | 1845 | |
| Commenced operations | 1823 | 1825 | 1828 | 1828 | 1830 | 1832 | 1832 | 1833& 1834 | 1832 | 1836 | 1840 | 1846 | 1845 | |
| Capital stock | $2,000,000 | 1,200,000 | 600,000 | 600,000 | 750,000 | 600,000 | 600,000 | 1,500,000 | 140,000 | 1,200,000 | 1,200,000 | 600,000 | 500,000 | 11,490,000 |
| Number of mills | 5&prt. wks. | 3&prt. wks. | 2 | 1 carpet. 1 cotton. 3,400 wool. | 3 and 3dye-houses. | 2 | 2 | 5 | Bleachery & dyehouse | 4 | 4 | 2 | 2shops,smithy & furn. | 45 |
| Spindles | 41,600 | 25,956 | 11,776 | 7,142 cot'n. | 13,000 | 13,936 | 12,960 | 44,032 | | 34,374 | 29,152 | 16,128 | | 253,456 |
| Looms | 1,300 | 736 | 400 | 244 cotton. 50 p'r carp. 30 h'd carp. | 45 brdcloth 375 cassim. | 404 | 479 | 1,260 | | 966 | 919 | 548 | | 7,568 |
| Females employed | 1,157 | 750 | 340 | 500 | 950 | 400 | 460 | 1,200 | 20 | 870 | 750 | 450 | | 7,915 |
| Males employed | 600 | 970 | 65 | 225 | 550 | 90 | 100 | 200 | 230 | 160 | 160 | 90 | 600 | 3,340 |
| Yards, &c., made per week | 253,000 | 196,000 | 100,000 | 6,500carpet 40 rugs. 95,000cot'n | 18,000 cass. 2,100 br'del | 110,000 | 130,000 | 260,000 | | 200,000 | 297,000 | 181,000 | | 1752000cot. 30100wool. 6500carpet. |
| Cotton cons'd per week. lbs. | 60,000 | 53,000 | 36,000 | 50,000 | | 40,000 | 39,000 | 95,000 | | 67,000 | 97,000 | 54,000 | | 591,000 |
| Wool cons'd per week. lbs. | | | | 13,000 | 30,000 | | | | | | | | | 43,000 |
| Yards dyed and printed | 225,000 | 75,000 prtd. 15,000 dyed | | | | | | | 16,500 dyed | | | | | 300,000prtd 31,500 dyed. |
| Anthr'ite coal per ann. tons | 5,000 | 3,000 | 300 | 600 | 2,000 | 400 | 250 | 700 | 500 | 750 | 750 | 1,900 | 1,000 hard. 300chal.soft | 16,750 |
| Charcoal per annum. bush. | 3,555 | 2,148 | 1,500 | 2,000 | 1,800 | 2,000 | 1,800 | 3,000 | | 1,800 | 1,500 | | | 15,000 35,503 |
| Wood per annum. cords | 200 | 500 | | 500 | 3,000 | 50 | 150 | 190 | 500 | 70 | 70 | | 100 | 5,260 |
| Oil per annum. gallons | 11,000 | 6,500 | 3,440 | 8,000 lard. 5,000 sperm | 24,000 lard. 5,00 sperm | 3,500 | 3,693 | 8,917 | | 7,100 | 7,600 | 4,200 | 2,300 | 67,550 oil. 32,000 lard. |
| Water-wheels, diameter | 30 feet | 13 feet | 13 feet | 13 feet | 12 & 17 feet | 12 feet | 13 feet | 17 feet | | 17 feet | 17 feet | 17 feet | 13 feet | |
| Length of do. for each mill | 94 feet | 42 feet | 42 feet | 60 feet | 23,31&45ft. | 62 feet | 62 feet | 60 & 80 feet | | 60 feet | 60 feet | 6 of 18ft.ea. | 33 feet | |
| Starch per annum. lbs. | 100,000 | 120,000 | 70,000 | | | 112,000 | 65,000 | 140,000 | 224,000 | 120,000 | 140,000 | 120 horse-power eng. 80,000 | | 1,171,000 |
| Flour per annum. bbls. | 425 | 300 | | | | | 100 | | | | 40 | | | 765 |
| How warmed | Steam | Steam,H.A | Steam | Hot air fur. | Fur.&st'm | Steam | Steam | Steam | | Steam | Steam | Steam | Steam | |

The kinds of goods made were as follows:—By the Merrimack Manufacturing Company, prints and sheetings, No. 22 to 40; Hamilton Manufacturing Company, prints, flannels, and sheetings, 14 to 40; Appleton Company, sheetings and shirtings, No. 14; Lowell Manufacturing Company, carpets, rugs, and cotton cloth; Middlesex Manufacturing Company, broadcloth and cassimere; Sussex Manufacturing Company, drillings, 14; Tremont Mills, sheetings and shirtings, No. 14; Lawrence Manufacturing Company, printing cloths, sheetings, and shirtings, 14 to 30; Lowell Bleachery, 1,700,000 lbs. bleached per annum; Boott Cotton Mills, drillings, No. 14, shirtings, No. 40, printing cloth, No. 40; Massachusetts Cotton Mills, sheetings, 13, shirtings, 14, drillings, 14; Prescott Manufacturing Company, sheetings and shirtings, 12½ and 14; Lowell Machine Shop, 3,000 tons wrought and cast iron per annum.

Average wages of females, clear of board, per week, $2; average wages of males, clear of board, per day, 80 cents. Medium produce of a loom, No. 14 yarn, 45 yards per day; No. 30, 33 yards per day; average per spindle, 1⅛ yards per day.

The Middlesex Company make use annually of 6,000,000 teasels; 1,600,000 lbs. fine wool; 80,000 lbs. glue; $60,000 worth of dye-stuffs, and $17,000 worth of soap.

The Lowell Machine Shop, included among the above mills, can furnish machinery complete for a mill of 6,000 spindles, in three months, and a mill can be built in the same time.

The several manufacturing companies have established a hospital for the convenience and comfort of persons employed by them respectively, when sick, which is under the superintendence of one of the best of surgeons and physicians.

The institution for savings for the year ending April 29, 1846, had received from 4,679 depositors, $750,645 77, being an increase from the former years of 491 depositors, and the amount of $76,020 95. The whole number of new accounts opened was 1,692, depositing with others, $330,471 56; and 1,181 accounts were closed, withdrawing, with other partial payments, $254,450 61. The operatives in the mills are the principal depositors.

There is one public high-school in the city, where all branches of education are taught, preparatory to a collegiate course. Also, eight grammar-schools and thirty-six primary schools, all of which will compare to advantage with any schools in the country. Average daily attendance, about 3,500.

There are two banks,—the Lowell, capital $200,000, and the Railroad, capital $600,000.

There is a Mutual Insurance Company in the city, which has been highly successful in its operations.

There is a valuable library of 5,000 volumes belonging to the city, to which any one can have access by paying fifty cents per annum.

The Mechanic Association have an extensive reading room, and a valuable library of 3,300 volumes. Nearly all the religious societies have valuable libraries of religious and miscellaneous books.

An important undertaking, eventually to redound to the interest and wealth of Lowell, is the building of the new canal. It is destined to give to most of the mills on the lower level a more constant supply of water, and consequently benefit those on the upper level. It is to be of an average width of 100 feet, and a depth of 15 feet. It will require in its construction, a rock excavation of 150,000 yards, an earth excavation of 110,000 yards, and a mass of masonry of 50,000 yards; the whole estimated at an expense of $500,000

In the course of a few months, two new cotton mills will be in operation; the one built by the Merrimack Company to contain 23,424 spindles, and 640 looms; the other, built by the Hamilton Company, will commence with 10,368 spindles, and 260 looms, but is of sufficient capacity to contain nearly 20,000 spindles and 400 looms. The driving power of the latter will be a steam-engine of 160 horse-power, which is being put in.

Other manufactures are produced in the city than those specified above, of a value of $800,000, employing a capital of $310,750, and about 1,000 hands.

## MINERAL WEALTH OF SOUTH AUSTRALIA.

The richness of the South Australian Mines is described, by the Colonial Gazette, as altogether surprising. The geological description, furnished by a gentleman who traversed the country, and in whose account the utmost confidence may be placed, is most wonderful. The extent of the mineral lands, the richness of the ores, and the regularity of the lodes are, we believe, unexampled. In Mr. Dutton's highly interesting publication, entitled "South Australia and its Mines," various analyses of the copper ore from the Kapunda Mine (of which Mr. Dutton is a joint proprietor) are given. These were made by Mr. Penrose, the Government assayer at Swansea, and are as follows:—

"The average produce gave a result of 29¾ per cent of copper for 39 specimens, good, bad, and indifferent, taken from every part of the property, the following being the different descriptions found:—Grey sulphuret with green carbonate; produce, 53½ per cent. Black sulphuret with green carbonate; 23½, 24, 33½, 44½, 50½, 59½ per cent. Pale green carbonate; 26¾, 33, 34½. 40½, 41½, 48½ per cent. Blue carbonate (hydrocarbonate;) 21½ per cent. Grey carbonate with red oxide, 28½ per cent. Dark green carbonate, 28¾ per cent."

The comparative value of the ore from the Kapunda Mine is also given, ascertained by actual sales at Swansea; and this is the result:—

AVERAGE PRODUCE OF THE PRINCIPAL MINES IN THE WORLD.

| | | Average per ton. | | |
|---|---|---|---|---|
| Cuba.... | Cobre Mine,..... | £11 | 9 | 1 |
| | Santiago,..... | 14 | 10 | 6 |
| | San Jose,..... | 12 | 11 | 9 |
| South Amer'a | Chili (principally Regulus,)..... | 29 | 13 | 6 |
| | Valparaiso ore..... | 15 | 11 | 11 |
| | Copiapo..... | 18 | 14 | 0 |
| New Zealand..... | | 10 | 10 | 6 |
| Cornish Mines..... | | 5 | 15 | 6 |
| Irish Mines..... | | 6 | 8 | 8 |
| South Austr'n | Montacute..... | 13 | 11 | 2 |
| | Kapunda..... | 24 | 15 | 3 |

The average produce of the Kapunda Mine is, therefore, at present the highest of any copper mine in the world.

## MANUFACTURES IN MISSOURI.

Extract from the annual message of Governor John C. Edwards, to the Legislature of Missouri, under date November 16, 1846:—

"The establishment of manufactories is attended with its difficulties. To carry them on very successfully, large investments and a superior population are required. We are not without capital, but the high rate of interest, and the many supposed profitable investments for money, which have heretofore existed, have prevented the appropriation of funds to the erection of manufacturing establishments. If the rate of interest were lower, capital would be probably invested in manufactories to a considerable extent. The tariff also retards the establishment of manufactories in our State, whether it be a tariff for protection, or a tariff for revenue, for all tariffs are protections to a greater or less extent; but a high tariff tends more to prevent the establishment of manufactories in our State, than a low one, being a protection to the eastern manufacturer. The eastern manufacturer contends that he cannot succeed without protection against his foreign competitor. Our interior position, and our remoteness from the principal ports of entry, gives the manufacturer in this country a protection which no tariff can immediately affect. If, then, the eastern manufacturer was but lightly protected, or not protected at all, he would find it profitable to remove his capital, and to invest it in manufactures in the West, where nature would always protect him against the foreign competitor. No country can manufacture cheaper than our State. We have all the necessary ingredients at the lowest prices. We have the real estate, the water-power, the ore to make the iron to make the machinery, the manual labor, the provisions to support the hands, the raw material, the flax, hemp, and wool of our own production, and the cotton in exchange for our wheat, corn, and tobacco, hogs, horses, cattle, and mules—and these ingredients we have, taken together, cheaper than any other country on earth. Even our manual labor is at the lowest price. But, as before observed, to manufacture *very* successfully, a superior population is required. This we can soon have by fostering the common school, and developing the genius and mechanical ingenuity of the youth of our country."

# COMMERCIAL STATISTICS.

## COMMERCE OF THE PORT OF PHILADELPHIA.

We publish below, a statement of the foreign commerce of Philadelphia, prepared by order of the collector of that port, which shows an increase in 1846, over 1845. Col. Childs, the editor of the "Commercial List," says the commerce of Philadelphia "is destined to increase, in spite of the policy of the general government, which leaves our noble river without a single safe harbor, from the breakwater to the city of Philadelphia."

COMMERCE OF PHILADELPHIA FOR THE YEAR 1845 AND 1846, COMPARED.

*Imports.*

| | | |
|---|---|---|
| *Value of Imports in American vessels, for 1846,..... | $7,751,948 00 | |
| Value of Imports in foreign vessels, " ..... | 556,667 00 | |
| | | $8,308,615 00 |
| Value of Imports in American vessels, for 1845,..... | $6,939,769 00 | |
| Value of Imports in foreign vessels, " ..... | 554,728 00 | |
| | | 7,494,497 00 |
| Excess in favor of 1846,..... | | $814,118 00 |

*Cash Duties.*

| | | |
|---|---|---|
| In American vessels, 1846,..... | $2,413,774 24 | |
| In foreign, " " ..... | 194,288 92 | |
| | | $2,608,063 16 |
| In American vessels, 1845,..... | $2,150,253 36 | |
| In foreign, " " ..... | 220,264 35 | |
| | | 2,370,517 00 |
| Excess in favor of 1846,..... | | $237,545 45 |

VALUE OF EXPORTS TO FOREIGN PORTS FOR 1843, '44, '45, AND '46, COMPARED.

| | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|
| Domestic articles,..... | $2,837,646 | $3,326,673 | $3,413,928 | $4,596,744 |
| Foreign " ..... | 221,525 | 338,023 | 502,905 | 521,310 |
| | $3,059,171 | $3,664,696 | $3,916,833 | $5,118,054 |
| Excess in favor of 1846,..... | 2,058,883 | 1,453,358 | 1,201,221 | ..... ... |

TONNAGE ENTERED FROM FOREIGN COUNTRIES.—In American vessels, 1846, 87,146 tons; in foreign vessels, 1846, 12,483; total, 99,629 tons. In American vessels, 1845, 73,705 tons; in foreign vessels, 1845, 10,794 tons; total, 84,499 tons. Excess in favor of 1846, 15,130 tons.

NUMBER OF ARRIVALS AND CLEARANCES DURING THE YEARS 1845 AND '46.—Arrivals from foreign ports, 1846, 459; coastwise,† 1846, 6,018; total, 6,477 vessels. Arrivals from foreign ports, 1845, 387; coastwise, 1845, 8,029; total, 8,416 vessels. Excess in favor of 1845, 1,939. Clearances for foreign ports, 1846, 458; in 1845, 400. Excess in favor of 1846, 58 vessels.

## EXPORT OF TEAS FROM CHINA TO THE UNITED STATES.

We give below a statement, derived from the Friend of China, of the export of teas to the United States, in the years ending June 30th, 1845 and 1846, in 50 vessels:—

| Year. | No. Vessels. | Green. | Black. | Total. |
|---|---|---|---|---|
| 1845,..... | 50 | 13,802,099 lbs. | 6,950,159 lbs. | 20,752,558 lbs. |
| 1846,..... | 40 | 14,236,076 | 4,266,066 | 18,502,142 |

* Part of the fourth quarter estimated.

† Some of the smaller craft, heretofore entered, omitted this year.

## IMPORTS AT BOSTON IN THE BRITISH STEAM PACKETS.

It appears from a statement of Marcus Morton, Collector of the port of Boston, that the British steamers commenced their trips to that port during the second quarter of 1840, and that the value of merchandise imported, including specie, was, for—

| 1840. | 1841. | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|---|
| $72,600 | $769,700 | $730,800 | $9,300,600 | $4,443,700 | $4,026,300 | $4,445,000 |

The amount of duties, collected on the goods imported by the steamers during the year 1846, ending 31st December, was as follows, viz.:—

| | | | | | | |
|---|---|---|---|---|---|---|
| Per Hibernia, in | Jan., | $139,844 87 | Per Caledonia, in | Aug., | $46,447 62 |
| Cambria, | Feb., | 148,475 82 | Britannia, | Sept., | 43,137 60 |
| Hibernia, | March, | 107,004 10 | Cambria, | " | 52,689 23 |
| Caledonia, | April, | 57,790 81 | Hibernia, | Oct., | 11,667 06 |
| Cambria, | May, | 24,368 61 | Caledonia, | " | 23,378 84 |
| Britannia, | " | 35,888 16 | Britannia, | Nov., | 20,453 71 |
| Hibernia, | June, | 14,556 36 | Acadia, | " | 26,860 36 |
| Caledonia, | " | 28,112 05 | Caledonia, | Dec., | 21,972 27 |
| Britannia, | July, | 47,871 76 | Cambria, | " | 53,958 50 |
| Cambria, | " | 79,187 07 | | | |
| Hibernia, | Aug., | 75,066 95 | Total, | | $1,054,731 75 |

## BRITISH IMPORTS OF TOBACCO, 1845-46.

Account of tobacco imported in the year ending January 5, 1846, derived from parliamentary documents:—

| | Unmanufac'd. lbs. | Manufactured as cigars. lbs. | Snuff. lbs. | Total. lbs. |
|---|---|---|---|---|
| United States of America, including Texas | 31,153,072 | 1,718,956 | 5 | 32,872,033 |
| New Granada, Venezuela, and Ecuador | 470,942 | 59 | ... | 471,001 |
| Brazil | 285,936 | 1,908 | 21 | 287,865 |
| Cuba | 420,204 | 262,873 | ... | 689,077 |
| British West Indies | 9,416 | 2,225 | 41 | 11,682 |
| British East Indies | 110,748 | 72,960 | 33 | 183,740 |
| Java | 1,693 | 98 | ... | 1,791 |
| Philippine Islands | ..... | 18,632 | 2 | 18,634 |
| West Coast of Africa | 2,628 | 155 | ... | 2,783 |
| Turkey, Syria, and Egypt | 11,114 | 842 | ... | 11,956 |
| Holland | 230,812 | 503 | 8 | 231,323 |
| Belgium | 71,794 | 1,924 | 13 | 73,731 |
| Hanseatic Towns | 126,764 | 13,960 | 28 | 140,752 |
| Other Parts | 48,895 | 8,194 | 59 | 57,148 |
| Total | 32,944,017 | 2,109,289 | 210 | 35,053,516 |

## THE FUR TRADE.

### EXPORTATIONS BY THE HUDSON'S BAY COMPANY.

The following is a comparative statement of exportations to London, by this company, from York Fort, Mackenzie River:—

| Skins. | 1846. | 1845. | Skins. | 1846. | 1845. |
|---|---|---|---|---|---|
| Beaver, | 31,363 | 10,509 | Lynx, | 14,242 | 5,977 |
| Badger, | 1,017 | ..... | Martin, | 85,041 | 53,461 |
| Bear, | 2,252 | 3,080 | Mink, | 19,308 | 18,083 |
| Fisher, | 2,974 | 2,227 | Musquash, | 201,915 | 164,260 |
| Fox, silver, | 367 | 276 | Otter, | 1,389 | 1,137 |
| Fox, cross, | 1,291 | 859 | Rabbit, | 27,758 | 46,970 |
| Fox, red, | 3,922 | 2,649 | Swan, | 1,909 | 3,545 |
| Fox, white, | 843 | 2,910 | Wolf, | 7,652 | 9,106 |
| Fox, Kitt, | 3,837 | 5,267 | Wolverin, | 693 | 534 |

# THE BOOK TRADE.

1.—*History of the Discovery and Settlement of the Valley of the Mississippi, until the Year* 1846. By JOHN W. MONETTE, M. D. New York: Harper & Brothers.

This is a very important, elaborate, and valuable book—one which should, and must, elicit the attention of all who wish to form an intelligent judgment of the character and growth of that immense region which forms the valley of the Mississippi. The author has devoted many years and immense labor, to the collection of materials for its preparation; and has made by far the most authentic and extensive record of the early history of that country that has ever before appeared. The Mississippi valley will, ere many years, become the most interesting section of the Western continent; and every fact relating to its early settlement will thus become of historic value. Besides this, the record is one of rarely equalled interest. It abounds in incidents of the most thrilling character, and exhibits instances of endurance, courage, and adventure, which can scarcely be paralleled in any other portion of the history of the world. Monette's history will be found invaluable for purposes of study and reference, as well as exceedingly interesting to the general reader. It is valuable, especially, as a storehouse of important facts, no where else to be found in an equally connected, compact, and accessible form. It is issued in two very handsome octavo volumes, elegantly printed, and copiously furnished with maps, illustrations, etc., etc. It cannot fail to be received with favor by the public.

2.—*A System of Intellectual Philosophy.* By ASA MAHAN, President, and Professor of Intellectual and Moral Philosophy in the Oberlin Collegiate Institute. Second edition. 12mo., pp. 330. New York: Harper & Brothers.

The reputation of the author of this treatise, at the head of a new school of religionists known as "Perfectionists," and as a man of high intellectual as well as pure and elevated moral attainments, should secure for whatever he may add to the literature of science, philosophy, and religion, a candid hearing. This essay embraces the sum of a course of lectures, which, for eight years, the author was in the habit of delivering to successive classes in the institute over which he presides, on the subject of intellectual philosophy. No class, we are informed, ever passed through this course without becoming deeply interested in the science of mental philosophy, and without receiving, in their judgment, great benefit from the truths developed, as well as from the method of development which was adopted. In preparing it for the press, the author assures us that it has been his aim to reject light from no source, whatever, from which it could be obtained; while, at the same time, to maintain the real prerogative of manly independence of thought. The individuals to whom he feels most indebted as a philosopher, are Coleridge, Cousin, and Kant; whom he pronounces three luminaries of the first order in the sphere of philosophy. It is presented to the public in a form well adapted to popular reading.

3.—*Curiosities of Literature; consisting of Sketches and Characters of English Literature.* By J. D'ISRAELI, D. C. L., F. S. A. 2 vols., 12mo., pp. 405–461. New York: Harper & Brothers.

D'Israeli, following the steps of the human mind through the wide track of time, traces from their beginnings the rise, the progress, and the decline of public opinions; and, as the objects present themselves, illustrates the leading incidents in the British annals of literature. The title prefixed to the work, we are told by the author, was adopted to connect it with its brothers, the "Curiosities of Literature," and the "Miscellanies of Literature;" but, although the form and manner bear a family resemblance, the subject has more variety of design. It is an interesting work, tracing the connection of the incidents of author's lives with their intellectual habits, and at the same time exhibiting the progress of the human mind and society, which should never be separated.

4.—*Memoirs of the Most Eminent American Mechanics. Also, Lives of Distinguished European Mechanics; together with a Collection of Anecdotes, Descriptions, &c., relating to the Mechanic Arts. Illustrated with fifty engravings.* By HENRY HOWE. 12mo., pp. 482. New York: Harper & Brothers.

This work has passed through several editions, one of the best evidences of its value, at least to the publishers. It contains comprehensive biographies of John Fitch, Benjamin Franklin, Oliver Evans, Samuel Slater, Eli Whitney, David Bushnell, Amos Whittemore, Robert Fulton, Jacob Perkins, Thomas Blanchard, and Henry Eckford, which occupy nearly one-half the volume. The remainder embraces the lives of eighteen of the most eminent mechanics of Europe, including James Ferguson, Richard Arkwright, James Watt, and others, equally distinguished as men of genius in different departments of the mechanic arts.

5.—*The Life and Voyages of Christopher Columbus.* By WASHINGTON IRVING. Abridged by the same, including the Author's Visit to Palos. With a Portrait, Map, and other Illustrations. 12mo., pp. 395. New York: Harper & Brothers.

"Irving's Life of Columbus" enjoys a reputation that can scarcely be extended. The present volume, which was first published in 1839, is an abridgment of the larger work, by its author, and was designed for popular use in families and the District School Libraries of the country, which are free to all ages and classes. It is a comprehensive and beautiful memoir of the discoverer of America.

6.—*An Author's Mind: The Book of Title-Pages. "A Bookful of Books;" or, Thirty Books in One.* Edited by M. F. TUPPER, M. A., author of "Proverbial Philosophy," "Geraldine," "The Crock of Gold," "The Twins," etc. 12mo., pp. 200. Philadelphia: Carey & Hart's Library for the People.

This "Bookful of Books," which purports to be edited by Mr. Tupper, we strongly suspect may claim him as its author. The internal evidence of the fact is too clearly marked in every page and paragraph to leave on the mind of the reader a doubt as to its identity. Its unique title, if nothing else, will induce the curious to dip into its pages; and whoever reads it will find that it is "not merely a new book, but a little library of new books; thirty books in one—a very harvest of epitomized authorship; the cream of a whole fairy dairy of quiescent post octavos." So says the "author's mind." What more can we say to secure for the author an attentive reading, and for the publishers a large sale?

7.—*The Statesmen of America, in* 1846. By SARAH MYLTON MAURY. 12mo., pp. 260. Philadelphia: Carey & Hart.

Mrs. Maury is an English woman, the wife of an American merchant, residing at Liverpool. She visited this country in company with a son, whom she calls the Doctor. During her residence at Washington, she became acquainted with many of our most prominent statesmen, whose characters she attempts to delineate; and, in most cases, abating a due moiety for exaggeration and toadyism, her pen and ink portraits will be readily recognised. She, of course, admires all who treated her with courtesy, or any degree of deference. Men of widely dissimilar character and views, in politics and religion, come in for a share, and a pretty liberal one, of her eulogistic commendations. The work is dedicated to Secretary Buchanan, one of her peculiar favorites. With all its faults, it is an amusing book, and one that will be read almost as much as if it had been as extravagantly abusive as it is eulogistic.

8.—*American Comedies.* By J. K. PAULDING, author of "Westward, Ho!" "Dutchman's Fireside," etc., etc., and WILLIAM IRVING PAULDING. 12mo., pp. 295. Philadelphia: Carey & Hart.

This volume contains four comedies—The Bucktails, or Americans in England; The Noble Exile; Madmen All, or the Cure of Love; Antipathies, or the Enthusiasts by the Ears. The first-named was written by J. K. Paulding, shortly after the conclusion of the late war with England, while the feelings it produced were still fresh in the public mind. The others are the productions of a kinsman of Mr. P., a young man scarcely one-and-twenty; "and the whole," says the author of the first, "is now published as an experiment, how far the public taste may incline to relish this species of literature, and in what degree the authors are qualified to make the appeal with any degree of success." We are not competent to judge of these productions as acting comedies; but we feel quite sure they will form an agreeable repast for those who delight in rare humor, identified, as it is, with our national characteristics; and we should prize them the more highly as contributions to a purely national literature.

9.—*Froissart Ballads, and other Poems.* By PHILIP PENDLETON COOKE. 12mo., pp. 216. Philadelphia: Carey & Hart.

Although the name of Philip Pendleton Cooke is not to be found in Mr. Griswold's Poets and Poetry of America, we will venture to say, in announcing the poems of this new candidate for a niche in the "Temple of the Muses," that some, at least, not more worthy, have found a place among Mr. Griswold's Poets. Three out of five of the ballads are versified transcripts from Froissart; the other two, "The Master of Bolton," and "Geoffrey Totenoire," are stories of the author's own invention. Nearly one-half of the volume is occupied with "miscellaneous poems," of varied length and merit. His versification is generally natural and easy, and the ballad and poem evince considerable artistic skill, with a correct and highly cultivated taste. We consider the volume worthy of a place among *our* collection of American Poets, and shall place it *literally* alongside of Bryant, Longfellow, Lowell, etc.

10.—*The Scripture School Reader, consisting of Selections of Sacred Scriptures for the Use of Schools.* Compiled and arranged by W. W. EVARTS, A. M., author of the "Bible Manual" and "Pastor's Hand-Book," and WILLIAM H. WYCKOFF, A. M., late Principal of the Collegiate School. 12mo., pp. 348. New York: Nafis & Cornish.

The present volume fills an unoccupied niche in our school literature. The compilers have selected, with taste and judgment, from the didactic, poetical, historical, and biographical parts of Holy Writ, the choicest gems in each department. The volume opens with the Divine attributes, and the selections are culled from the different books of the Old and New Testament, declaratory of the Omnipotence, Omniscience, Omnipresence, Beneficence, Eternity, &c., of God. Connected biographies of the leading Scripture characters, and historical events, are arranged in the same systematic order. The poetry of the Bible is restored to its proper metrical form, thus clothing it with new beauty and force. In the didactic part, the social and moral graces and virtues are made the subject of distinct sections, and are enforced by Christ, and his apostles of the New Testament, and the long line of inspired poets, prophets, and historians, from Adam to the last of the apostles. We hope to see it introduced into all our public schools.

11.—*The Christian's Prayer. The Rector's Christmas Offering to his Parishioners.* 18mo., pp. 131. New York: Henry M. Onderdonk.

That simple, beautiful, and comprehensive prayer of the founder of Christianity, constitutes the subject of the Rector's meditations. Each portion is illustrated with appropriate comments, adapted to the state of religious sentiment in the Episcopal Church.

12.—*A System of Moral Philosophy, adapted to Children and Families, and especially to Common Schools.* By Rev. D. STEELE and a Friend. 18mo., pp. 80. Boston: James Munroe & Co.

The object of this work is to give a child, at the earliest age, a foundation on which it may build moral reasonings. The system of moral philosophy which it enforces is based on the only legitimate foundation —love to God and love to man. Although the joint production of a Methodist and an Episcopalian, it is entirely free from sectarianism; and, withal, it carries out to the letter the design of the author, viz: that of producing a small, plain, simple work, so easy of comprehension that the youngest child might understand it, and presented in such a way that the child might love it also.

13.—*Lessons on the Parables of the Saviour, for Sunday Schools and Families.* 18mo., pp. 246. Boston: Crosby & Nichols. New York: C. S. Francis & Co.

The design of these lessons, in the form of dialogues, is to apply the practical teachings of our Saviour, illustrated as they are with peculiar power in his parables, with all possible sympathy, to the hearts of the young. The impressive lessons of purity, fidelity, self-control, truthfulness, justice, mercy, devotion, and love, inculcated in the impressive and beautiful parables of Jesus, as illustrated in this work, are well calculated to bring their sacred influence into the familiar sphere where children are daily living; into their houses, their employments, and their pleasures.

14.—*Hymns, Songs, and Fables, for Young People.* By ELIZA LEE FOLLEN. 18mo., pp. 99. Boston: William Crosby & Co.

The first edition of these poems was published in 1831; and from the preface to that edition, written by the lamented Dr. Follen, we learn that the pleasure they gave in a limited circle tempted the writer to print them. The edition just published has been enlarged by poems either not before printed, or that have had a very limited circulation, and also by a number of translations from the German. The gay and the grave are here blended together happily, illustrating the beautiful remark of Dr. Follen, that "the smile that overtakes its tears is as necessary to the child as the sun, after a spring shower, is necessary to the young plant."

15.—*Critical and Miscellaneous Essays.* By ALEXANDER H. EVERETT. Second Series. 12mo., pp. 475. Boston: James Munroe & Co.

The present volume contains eleven critical and miscellaneous essays, which have appeared, from time to time, either in the North American, Southern, or Democratic Reviews. The opening article, which occupies nearly one hundred pages, is an interesting biographical sketch of the adventurous, romantic, and varied life of Harro Harring, an exile now in this country, who lavished, without scruple, the whole wealth of his time, talents, and affections, in earnest and persevering, though, perhaps, in some cases, unfortunate efforts to establish, in other parts of the world, the political principles which form the basis of our free institutions. The other papers in this series are devoted to history, biography, philosophy, sculpture, and literary criticism. Mr. Everett has been a careful student, and is probably one of the most accomplished scholars that this country has produced; and the papers comprised in this collection will not suffer by comparison with some of the best productions of the "Modern British Essayists."

16.—*Shells from the Strand of the Sea of Genius.* By HARRIET FARLEY. First Series. 12mo., pp. 300. Boston: James Munroe & Co.

The fanciful name selected as the title for this collection, not inaptly indicates its character. It consists of stories, essays, poems, and fancies, which display an agreeable versatility of style and sentiment. Without any extraordinary evidences of genius, the volume exhibits the talents of the author in a favorable aspect; and the racy, agreeable tale, sketch, or poem, comprised in her "Shells," will afford far more pleasure than many a more pretending volume.

17.—*Remains of the Rev. William Jackson, late Rector of St. Paul's Church, Louisville, Ky. With a Brief Sketch of his Life and Character.* By Rev. WILLIAM M. JACKSON. 8vo., pp. 397. New York: Stanford & Swords.

It is well remarked, by the author of this volume, that it is not incident or achievement, but character, which imparts value to a biography. The former may impart an absorbing interest, and yet leave it utterly worthless; and, on the other hand, character may be developed where there is nothing of the bold or the amusing, the marvellous or the chivalric, to embellish or enliven the narrative. The life of the faithful pastor of a parish, like the subject of this memoir, is the character which the appreciating author attempts to delineate. Besides the interesting memoir, simple and brief, the volume contains selections from his private correspondence, fifteen parochial discourses, and a collection of fragments from his writings, which exhibit him in the light of a thoughtful, sincere, and devout minister of the Protestant Episcopal Church. Mr. Jackson's views of religion harmonize with that portion of the church to which he belonged, and denominated, in the theological phraseology of the day, evangelical.

18.—*An Introduction to Smith and Duke's American Statistical Arithmetic.* By FRANCIS H. SMITH, A. M., &c., (see notice of Elemental Treatise on Analytical Geometry.) 12mo., pp. 93. Philadelphia: Thomas, Cowperthwait & Co.

This little manual is particularly adapted to the increasing taste for statistical science, and is well calculated to prepare beginners for the study of the more advanced parts of it. Its order is natural, and its style as simple as the subject will admit. It is, moreover, relieved of much of the superfluous matter which works of this class usually possess.

19.—*The Life of William Alexander, Earl of Stirling, Major-General in the Army of the United States during the Revolution, with Selections from his Correspondence.* By his Grandson, WILLIAM ALEXANDER DUER, LL. D. Published for the New Jersey Historical Society. 8vo., pp. 272. New York: Wiley & Putnam.

There are but few names in the course of our Revolution which were more distinguished than that of Lord Stirling. His history, and the history of the events through which he passed, possess a peculiar interest; for some of the most important scenes in the war were those in which Lord S. gained honor for himself and for his country. The battles of Germantown and of Monmouth—of Long Island, where he was taken prisoner, as also the many minor brilliant exploits planned and executed by him, all show how much his heart was engaged in the cause of freedom. We have to regret exceedingly the loss of some of the most valuable of Lord Stirling's correspondence, especially that of General Washington; but the selections which we have here possess an almost inestimable value. The neat manner in which the work is published is highly creditable to the New Jersey Historical Society; and we only hope that other works as valuable may follow this, their second volume.

20.—*The Life of Napoleon Bonaparte.* By WILLIAM HAZLITT. In Six Parts. Nos. 87 to 92, of Library of Choice Reading. New York: Wiley & Putnam.

All our works on the French Revolution take but one side of the question; Hazlitt, apparently from a conviction of right, has taken the opposite ground;—not that, in defending Napoleon, he justifies every excess committed; Robespierre, if living, would not do that; but he justifies everything he dares, and admitting the blame of the rest, throws it all upon the coalition, who ought not to have reduced the French to the necessity of massacring the suspected which filled their prisons. His views on these points are really curious; and the way in which he points out the errors committed, seems to show a willingness to have them repaired in some future attempt. It is the merit of this work that it stands *alone*, and supplies a deficiency in history hitherto unfilled; but "the man of one book" should rely upon another author than Hazlitt for his opinion of the life and times of Napoleon.

21.—*Probabilities: an Aid to Faith.* By the author of "Proverbial Philosophy." 12mo., pp. 106. New York: Wiley & Putnam.

Few there are of our readers, we imagine, who have not at some time been delighted with those thrilling tales, "The Twins and Heart" and the "Crock of Gold," or who have not been instructed by a few lines from that well of thoughts, "The Proverbial Philosophy." Tupper's name has been so favorably known to the public, that a natural curiosity arises with his desirers to learn what next of beauty, of love, and of kindness, he will communicate to them; and in this little work we see with how much of care one can reason with the *sceptical*, showing them that if they consider *probabilities* simply, then the great doctrines of the existence of a God, etc., etc., might reasonably be expected. It is but a small work; but in its few pages, there is stored much truth—much food for thought. The style is somewhat Carlyleish.

22.—*The Spaniards and their Country.* By RICHARD FORD, author of "The Hand-Book of Spain." Nos. 94 and 95, of the Library of Choice Reading. New York: Wiley & Putnam.

It is not till we take up a work like this of Mr. Ford's, that we discover how much may be learned of a people and their country in a book of travels. Not a page is wasted here in idle narrative, but it is all a mass of facts, and we carry away from its perusal more vivid impressions than are often derived from far more voluminous works. And yet, so far from wearying us, we part from him at last with regret, relieved, however, by the satisfaction derived from the consciousness of time well spent. Let any one, who suspects us of extravagance or partiality, take up the work and examine for himself, and before he is aware, he will be carried away with it, nor will his interest flag to the last—such is the peculiar vivacity of Mr. Ford's style. We know of no one book which gives us so full, clear, and accurate views of that remarkable country and its still more remarkable inhabitants.

23.—*Chronicles of the Cid; from the Spanish.* By ROBERT SOUTHEY. First American Edition. 8vo., pp. 486. Lowell: Daniel Bixby.

The Chronicles of the Cid is wholly a translation, says Mr. Southey; but it is not the translation of any single work, but comprises three, the first of which was printed in 1552. The translator omitted such parts as relate to the general history of Spain, and incorporated with it whatever additional circumstances, either of fact or costume, are contained in the *Cronica General*, or the *Poema del Cid*. The poem is to be considered as metrical history, not metrical romance. The writer, whose name unfortunately has perished, is pronounced by Southey the Homer of Spain. The style of the translator resembles the Scriptural. It is a work that will interest the scholar and the antiquarian, and is, in every respect, one of the finest specimens of typographical elegance that we have seen; resembling in its appearance the handsomest productions of the British press.

24.—*The Architect.* By WILLIAM H. RANLETT. 4to., Nos. IV. and V. New York: W. H. Graham.

We have heretofore expressed our opinion of this valuable publication. No. IV. contains two views, viz: a perspective view of the English cottage style, and a perspective view in the Grecian style; and in No. V. we have the celebrated Tudor style, which arose in England under the auspices of Henry VII. Each number has six plates, from handsome drawings on stone, in the first style of tinted lithography; and at the close of the number we find complete specifications and directions for building, and full estimates of the quantity of materials and labor required in their erection.

25.—*An Analysis of the Principles of Equity Pleading, containing a Compendium of the Practice of the High Court of Chancery and the Foundation of its Rules; together with an Illustration of the Analogy between Pleadings at Common Law and in Equity.* By D. G. Lubb, Esq., of Lincoln's Inn, Barrister at Law. Second American, from the last London Edition, with Notes and References to American Cases. By J. D. Wheeler, Esq., Counsellor at Law. New York: Banks, Gould & Co.

This work is a republication of the English edition, embracing the important topics of pleading and practice in equity, with notes and references to American cases. The American editor, in his preface, states "that those subjects are admirably condensed within the limits of this small volume; and yet they are so full in detail, that nothing of importance is omitted." The volume, itself, is compiled in a very condensed form; and, from the importance of the subject of equity jurisprudence in the various States of the Union, and the seeming value of the work, we doubt not that it will be favorably received by the legal profession.

26.—*Lives of Edward Preble and William Penn.* 12mo., pp. 408. Boston: Charles C. Little and James Brown.

This volume constitutes the twelfth number of the second series of the American Biography, conducted by Mr. Jared Sparks. The first sketch is the life of Edward Preble, by Lorenzo Sabine. Its subject was a prominent naval commander, originally from the State of Maine, and a commodore in the navy of the United States. From this well-compiled biographical sketch, it would appear that he maintained a high reputation during a long and active life, and performed signal services for his country. The life of William Penn, by George E. Ellis, exhibits the prominent facts connected with the career of the distinguished founder of Pennsylvania. The author has collected, from the abundant materials within his reach, the circumstances connected with this eminent individual, and has exhibited them in a clear and condensed form. We would here commend this valuable series of American Biography, as exhibiting authentic and judiciously compiled sketches of distinguished Americans, which may be consulted with equal pleasure and profit.

27.—*Memoirs and Correspondence of Jane Taylor.* By Isaac Taylor, author of the "Natural History of Enthusiasm," "Fouchism," etc. 18mo., pp. 274. New York: Carter's Cabinet Library.

The name of Jane Taylor has been associated with some of our earliest intellectual pleasures, if not with our first impressions of virtue and piety. Her writings have instructed the young, while they have afforded the purest, because most intellectual, delight. This little volume embraces a simple and appropriate memoir of her life, together with much of her private correspondence. Written by one who knew her intimately, it undoubtedly furnishes a correct delineation of her genius and her virtues.

28.—*Correspondence between a Mother and her Daughter at School.* By Mrs. Taylor and Jane Taylor. 18mo. New York: Robert Carter.

For the purpose of conveying instruction to young people at school, the method of letters from a mother was adopted, as the most natural and convenient, and as most likely to engage the attention of those for whose use the volume is designed. The letters should be read by every boarding-school miss in the country.

29.—*The Wycliffites; or, England in the Fifteenth Century.* By Mrs. Colonel Mackay, authoress of the "Family at Heatherdale," etc., etc. 12mo., pp. 429. New York: Robert Carter.

This story, founded on historical data, of a secular as well as religious character, does not treat of Wycliffe's personal history, nor of the times in which he lived. Its design is to illustrate the tenets he taught, and to exhibit the influence they continued to exert over a succeeding generation; and with this view Mrs. Mackay has blended them with a historical narrative of the fifteenth century. The Wycliffites had not only to endure reproach as heretics; and to risk the dangers that attended it;—they had also to bear their part in the troubles of their country, both in public and private life: and, although it brings to light no new facts, but simply revives the old, it presents them in a new and more attractive form.

30.—*Physiology, Animal and Mental: applied to the Preservation and Restoration of Health of Body, and Power of Mind.* By O. S. Fowler, Practical Phrenologist, Editor of "The American Phrenological Journal," "Education and Self-Improvement," etc. 12mo., pp. 312. New York: Fowler & Wells.

The moral tendency of Mr. Fowler's works, without, so far as we have seen, a single exception, is decidedly beneficial. Although not an elegant or finished writer, Mr. Fowler understands the art of enforcing truth with an eloquence and power quite irresistible. Phrenology is the key with which he unlocks the mysteries of human nature; and, with its principles as a guide, studies humanity in all its relations. In the present treatise, he shows that power of mind depends on vigor of body; and that the moral virtues are influenced—almost controlled—by physiological conditions. We should be glad, our limits admitting, to present an outline of the contents of this work; but must be content with merely commending it to our readers as well calculated to teach us how to "restore and enhance the blessings of health and life—and, above all, to promote moral excellence and intellectual progression."

31.—*Encyclopædia of English Literature, &c.* Edited by Robert Chambers. Boston: Gould, Kendall & Lincoln.

We expressed our opinion as to the value of this work in the March number of this Magazine. We have since received two additional numbers, (III. and IV.,) which only tend to enhance our estimate of its excellence. It is a library in itself, embracing a practical history of English literature from the earliest to the present time.

33.—*A Universal Gazetteer; containing Statistical and Other Information of all the more Important Places in the Known World, from the most Recent and Authentic Sources.* By THOMAS BALDWIN, assisted by several other Gentlemen. Third Edition. With an Appendix, containing more than Ten Thousand Additional Names. Accompanied by a Map, exhibiting the Canals and Railroads of the United States. 12mo., pp. 648. Philadelphia: Lindsay & Blackstone.

The distinguishing feature of this Gazetteer is, that it furnishes a uniform standard of pronouncing the names of cities, towns, &c. Heretofore, very little attention has been paid to geographical orthoepy; and this is, we believe, the first attempt to furnish a correct standard. The condensed form in which the information touching the most prominent or considerable places in the world is presented, is a feature that will enhance its value to most persons, who, in general reading, find it necessary to consult a Gazetteer. To the student of geography, it would seem to be indispensable.

33.—*The Book of Travels in Africa, from the Earliest Ages to the Present Time. Compiled from the best authorities.* By JOHN FROST, LL. D., author of the "Book of the Navy," "Book of the Army," etc., etc. 12mo., pp. 252. New York: D. Appleton & Co.

This book, like the former compilations of Dr. Frost, is designed for popular reading;—rather for the million than the student. It imparts a general view of the progress of discovery in Africa, connected with particular travels and adventures of the most conspicuous of the several enterprising men who have explored the interior of that vast and almost unknown continent. The numerous embellishments, scattered over its pages, are from sketches by Major Denham, and render the work interesting and useful to the reader, and at the same time more effectually impress on the mind a knowledge of the general subject.

34.—*A Complete Key to Mitchell's School Geography, containing Full Answers to all the Questions on the Maps, etc.* By JAMES E. CARROL. 12mo., pp. 455. Philadelphia: Thomas, Cowperthwait & Co.

Although intended chiefly for the aid of teachers, this work may be consulted with advantage by private students of geography, and also by parents giving instruction to their children at home. Besides full answers to all the questions on Mitchell's maps, it contains much additional information, derived from the most recent and authentic sources; besides a great amount of statistical information, which will render it valuable as a cheap and convenient book of reference.

35.—*Twenty-Six Years of the Life of an Actor and Manager: interspersed with Sketches, Anecdotes, and Opinions of the Professional Merits of the most Celebrated Actors and Actresses of our day.* By FRANCIS COURTNEY WEMYSS. 2 vols., 12mo., pp. 403. New York: Burgess, Stringer & Co.

The life of an actor is generally rich in incidents, and there are few so grave as not to be more or less interested in the anecdotes of the green-room. Mr. Wemyss, in the present volume, has something to say of nearly all the European actors who have appeared upon the stage during the last twenty years. Booth, Edmund Kean, Forrest, Macready, James Wallack, Anderson, Charles Kean, Cooper, Hamblin, Conway, Keene, the Woods, A. A. Adams, Hill, Madame Vestris, Lydia Kelly, Celeste, Fanny Kemble, Mrs. Austen, Mrs. Knight, Ellen Tree, and Fanny Elssler, all figure prominently in the work. The criticisms are not always just, but there is an air of truthfulness in the narrative that inspires the reader with confidence in its general fidelity.

36.—*Valentine M'Clutchy, the Irish Agent; or, Chronicles of the Castle Cumber Property.* By WILLIAM CARLETON, author of "Traits and Stories of the Irish Peasantry," "Fardorougha, the Miser," "Jane Sinclair," etc. 12mo., pp. 408. New York: D. & J. Sadlier.

This novel has been pronounced the most powerful production of its author. It was written to exhibit a useful moral lesson—to startle the hard-hearted landlord and flagitious agent into a perception of their duty. It exhibits, in bold relief, the two great curses of Ireland—bad landlords and bad agents; and it shows the negligent and reckless absentee how those from whose toils and struggles he derives his support are oppressed, and fleeced, and trampled on in his name. The narrative of the story, a truthful picture of Irish life, is well sustained.

37.—*The Judson Offering, intended as a Token of Christian Sympathy with the Living, and a Memento of Christian Affection for the Dead.* Edited by JOHN DOWLING, D. D., author of "History of Romanism," etc., etc. 18mo., pp. 294. New York: Lewis Colby & Co.

The recent visit of the venerated pioneer of American missions to the East, the Rev. Dr. Judson, suggested the idea of preparing the present volume. It consists of a variety of sketches, narratives, and poems, from different pens, all bearing on the subject of missions, and connected more or less with the design of the book. The editor has aimed to avoid everything of a controversial character, and thus endeavored to render it an acceptable offering to the friends of missions, without distinction of denomination. The selections are made with taste and judgment, and possess a fair share of literary excellence.

38.—*Tremayne's Table of Post-Offices: containing an Alphabetical List of Post-Offices through the United States; Distances from Washington, D. C., and State and Territorial Capitals, respectively. Also exhibiting the Post-Offices in each State, as well as County. With an Appendix of the United States and British Tariffs.* 12mo., pp. 331. Philadelphia: Thomas, Cowperthwait & Co.

The contents of this work are explained in the title. It contains, besides, however, the Post-Office Law, and all the regulations of that Department of interest to the public. Its value to publishers, merchants, and indeed all who have occasion to correspond with different sections of our extensive territory, is sufficiently apparent.

THE

# MERCHANTS' MAGAZINE,

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# HUNT'S

# MERCHANTS' MAGAZINE.

MAY, 1847.

## Art. I.—THE PROGRESS OF WEALTH IN MASSACHUSETTS, FROM 1790 TO 1840.

It is the object of this article to exhibit the progress of wealth in Massachusetts, during the fifty years from 1790 to 1840, as deduced from the six State Valuations, taken at intervals of ten years each. These valuations have the legislative sanction of the General Court, and are the basis of apportionment of all State taxation for the ten years following. They are prepared from the returns furnished by the assessors of the several towns and districts, and are intended to embrace all the taxable property of the Commonwealth. They may be relied upon as sufficiently correct for the purposes of comparison, or of showing the progress of wealth during these fifty years; at least they furnish the nearest approximation we have to the true amount of wealth in the State.

Certain items of property are exempted from taxation, and of course are not included in these aggregates of valuation,—such as the property of the United States, of incorporated literary institutions, &c., (Revised Statutes, pp. 75, 76,) so that, at each valuation, the amount, on this account, probably falls short of the real amount by at least 1 or 2 per cent.

By the Constitution of Massachusetts, (ch. i. sec. 1,) it is provided that, "while the public charges of government, or any part thereof, shall be assessed on polls and estates, in the manner that has hitherto been practised, in order that such assessments may be made with equality, there shall be a valuation of estates within the Commonwealth, taken anew once in every ten years at least, and as much oftener as the General Court shall order."

In the first four valuations, the *income* value of the property, which is intended to be 6 per cent of the true value, appears in the returns, and is adopted as the basis of State taxation. In the following tables and views, the *income* value is reduced to the *true* value, in order to make the comparison at different epochs.

TABLE I.

*Exhibiting the Value of the Rateable or Taxable Property in Massachusetts, according to the State Valuations, at six epochs, by Counties as now constituted.*

| Counties. | 1790. Income value. | 1790. True value. | 1800. Income value. | 1800. True value. | 1810. Income value. |
|---|---|---|---|---|---|
| Suffolk..... | $359,747 07 | $5,995,784 50 | $811,946 12 | $13,532,435 33⅓ | $1,297,132 18 |
| Essex..... | 442,228 93 | 7,370,482 16⅔ | 867,877 17 | 14,464,619 50 | 1,059,319 69 |
| Middlesex. | 328,637 49 | 5,477,291 50 | 484,767 22 | 8,079,453 66⅔ | 632,853 97 |
| Worcester.. | 386,673 05 | 6,444,550 83⅓ | 545,151 52 | 9,085,858 66⅔ | 701,312 75 |
| Hampshire. | 114,422 86 | 1,907,047 66⅔ | 154,807 79 | 2,580,129 83⅓ | 213,608 24 |
| Hampden... | 111,773 06 | 1,862,884 33⅓ | 148,200 64 | 2,470,010 66⅔ | 211,101 46 |
| Franklin..... | 102,952 02 | 1,715,867 00 | 161,568 11 | 2,692,801 83⅓ | 210,239 55 |
| Berkshire... | 157,389 54 | 2,623,159 00 | 207,937 80 | 3,465,630 00 | 275,425 38 |
| Norfolk..... | 198,596 94 | 3,309,949 00 | 285,757 56 | 4,762,626 00 | 373,037 85 |
| Bristol..... | 161,346 04 | 2,689,100 66⅔ | 234,434 87 | 3,907,247 83⅓ | 321,036 24 |
| Plymouth... | 193,274 41 | 3,221,240 16⅔ | 263,503 72 | 4,391,728 66⅔ | 315,863 87 |
| Barnstable. | 51,531 97 | 858,866 16⅔ | 89,282 79 | 1,488,046 50 | 114,821 14 |
| Dukes..... | 15,574 36 | 259,572 66⅔ | 23,219 63 | 386,993 83⅓ | 24,974 21 |
| Nantucket. | 17,313 20 | 288,553 33⅓ | 45,488 16 | 758,136 00 | 126,268 48 |
| | 2,641,460 94 | 44,024,349 00 | 4,323,943 10 | 72,065,718 33⅓ | 5,876,995 01 |

TABLE I. CONTINUED.

| Counties. | 1810. True value. | 1820. Income value. | 1820. True value. | 1830. True value. | 1840. True value. |
|---|---|---|---|---|---|
| Suffolk..... | 21,618,869 66* | 3,602,737 93 | 60,045,632 16* | 80,244,261 25 | 110,000,000 00 |
| Essex..... | 17,655,328 16 | 1,267,794 25 | 21,129,904 16 | 24,335,935 57 | 31,111,204 00 |
| Middlesex. | 10,547,566 16 | 793,167 00 | 13,219,450 00 | 21,678,604 00 | 37,593,082 00 |
| Worcester.. | 11,688,545 83 | 848,840 19 | 14,147,336 50 | 21,166,640 69 | 29,804,316 00 |
| Hampshire | 3,560,137 33 | 260,000 00 | 4,333,333 33 | 5,603,255 87 | 7,298,351 00 |
| Hampden. | 3,518,357 66 | 270,638 20 | 4,510,636 66 | 6,548,342 20 | 10,188,423 71 |
| Franklin... | 3,503,992 50 | 258,082 39 | 4,301,373 16 | 5,452,300 00 | 6,548,694 00 |
| Berkshire. | 4,590,423 00 | 316,671 76 | 5,277,862 66 | 6,744,648 34 | 9,546,926 76 |
| Norfolk..... | 6,217,297 50 | 467,260 16 | 7,787,669 33 | 10,229,111 09 | 15,522,527 00 |
| Bristol..... | 5,350,604 00 | 390,154 79 | 6,502,579 83 | 11,346,936 33 | 19,493,694 84 |
| Plymouth. | 5,264,397 83 | 375,161 12 | 6,252,685 33 | 7,576,932 06 | 10,694,719 00 |
| Barnstable. | 1,913,685 66 | 143,129 56 | 2,385,492 66 | 3,500,000 00 | 4,896,683 00 |
| Dukes..... | 416,236 83 | 29,072 93 | 484,548 83 | 534,166 75 | 1,107,343 00 |
| Nantucket. | 2,104,474 66 | 190,000 00 | 3,166,666 66 | 3,895,288 40 | 6,074,374 00 |
| | $97,949,916 83 | 9,212,710 28 | 153,545,171 33 | 208,856,422 55 | 299,880,338 31 |

From the next table it appears that the proportions of the wealth in the several counties were very different at the six epochs. We have given in Table III. the proportions of the population in the several counties, in order that the reader may easily compare the wealth with the population in the several counties at those epochs.

TABLE II.

*Exhibiting the Proportions per cent of the Wealth of Massachusetts in the several Counties according to the six State Valuations.*

| Counties. | 1790. | 1800. | 1810. | 1820. | 1830. | 1840. | Increase or decrease. In 50 years. 1790–1840. | In 20 years. 1820–40. |
|---|---|---|---|---|---|---|---|---|
| Suffolk..... | 13.62 | 18.78 | 22.07 | 39.11 | 38.42 | 36.68 | +23.06 | —2.43 |
| Essex..... | 16.74 | 20.07 | 18.03 | 13.76 | 11.65 | 11.37 | — 5.37 | —2.39 |
| Middlesex..... | 12.44 | 11.21 | 10.77 | 8.61 | 10.38 | 12.54 | + 0.10 | +3.93 |
| Worcester..... | 14.64 | 12.61 | 11.93 | 9.21 | 10.14 | 9 94 | — 4.70 | +0.73 |
| Hampshire..... | 4.34 | 3.58 | 3.64 | 2.82 | 2.68 | 2.43 | — 1.91 | —0.39 |
| Hampden..... | 4.24 | 3.43 | 3.59 | 2.94 | 3.14 | 3.40 | — 0.84 | +0.46 |
| Franklin..... | 3.89 | 3.74 | 3.58 | 2.80 | 2.61 | 2.18 | — 1.71 | —0.62 |
| Berkshire..... | 5.96 | 4.81 | 4.69 | 3.44 | 3.22 | 3.18 | — 2.78 | —0.26 |
| Norfolk..... | 7.52 | 6.61 | 6.35 | 5.07 | 4.90 | 5.18 | — 2.34 | +0.11 |

* The fractions of a cent in these columns, are omitted for want of room.

TABLE II. CONTINUED.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Bristol..... | 6.11 | 5.42 | 5.46 | 4.24 | 5.43 | 6.50 | + 0.39 | +2.26 |
| Plymouth..... | 7.31 | 6.09 | 5.36 | 4.07 | 3.63 | 3.57 | — 3.74 | —0.50 |
| Barnstable..... | 1.95 | 2.06 | 1.95 | 1.55 | 1.68 | 1.63 | — 0.32 | +0.08 |
| Dukes..... | 0.59 | 0.54 | 0.43 | 0.32 | 0.26 | 0.37 | — 0.22 | +0.05 |
| Nantucket..... | 0.65 | 1.05 | 2.15 | 2.06 | 1.86 | 1.03 | + 0.38 | —1.03 |

It appears from Table II. that the increase of wealth in Suffolk county, in relation to that in the whole Commonwealth, was greatly increased during the 50 years, but this relative increase was wholly during the first 30 years, while there was a relative decrease during the last 20 years. This increase in Suffolk, during the last 50 years, was at the relative expense of all the other counties, except Middlesex, Bristol, and Nantucket.

TABLE III.

*Exhibiting the Proportions per cent of the Population of Massachusetts in the several Counties, according to the six United States Censuses.*

| Counties. | 1790. | 1800. | 1810. | 1820. | 1830. | 1840. | Increase or decrease. In 50 years. 1790–1840. | In 20 years. 1820–40. |
|---|---|---|---|---|---|---|---|---|
| Suffolk..... | 4.96 | 6.10 | 7.28 | 8.40 | 10.18 | 12.98 | +8.02 | +4.58 |
| Essex..... | 15.29 | 14.47 | 15.23 | 14.26 | 13.57 | 12.89 | —2.40 | —1.37 |
| Middlesex..... | 11.28 | 11.10 | 11.18 | 11.75 | 12.77 | 14.44 | +3.16 | +2.69 |
| Worcester..... | 15.00 | 14.47 | 13.75 | 14.07 | 13.82 | 12.92 | —2.08 | —1.15 |
| Hampshire..... | 4.97 | 5.41 | 5.20 | 5.06 | 4.96 | 4.19 | —0.78 | —0.87 |
| Hampden..... | 5.07 | 5.55 | 5.17 | 5.35 | 5.18 | 5.06 | —0.01 | —0.29 |
| Franklin.. ..... | 5.74 | 6.22 | 5.81 | 5.62 | 4.85 | 3.91 | —1.83 | —1.71 |
| Berkshire..... | 7.98 | 7.96 | 7.58 | 6.80 | 6.18 | 5.66 | —2.32 | —1.14 |
| Norfolk..... | 6.30 | 6.44 | 6.62 | 6.97 | 6.88 | 7.20 | +0.90 | +0.23 |
| Bristol..... | 8.37 | 8.01 | 7.88 | 7.82 | 8.13 | 8.16 | —0.21 | +0.34 |
| Plymouth..... | 8.38 | 7.64 | 7.45 | 7.29 | 7.05 | 6.42 | —1.96 | —0.87 |
| Barnstable..... | 4.58 | 4.56 | 4.71 | 4.59 | 4.61 | 4.41 | —0.17 | —0.18 |
| Dukes..... | 0.86 | 0.74 | 0.70 | 0.63 | 0.58 | 0.54 | —0.32 | —0.09 |
| Nantucket..... | 1.22 | 1.33 | 1.44 | 1.39 | 1.18 | 1.22 | 0.00 | —0.17 |

The changes in the proportions of the population, during the 50 years, were somewhat different from those of the wealth. The proportions of the wealth in only three counties, Suffolk, Middlesex, and Norfolk, were increased.

TABLE IV.

*Exhibiting the average amount of Wealth among the Inhabitants of Massachusetts, at six epochs, by Counties.*

| Counties. | 1790. | 1800. | 1810. | 1820. | 1830. | 1840. | Increase or decrease. 50 years. 1790-1840. | 20 years. 1820-40. |
|---|---|---|---|---|---|---|---|---|
| Suffolk..... | $319 06 | $524 79 | $628 80 | $1,366 53 | $1,290 86 | $1,148 54 | $829 48 | $217 99 |
| Essex..... | 127 26 | 236 36 | 245 59 | 283 03 | 293 70 | 327 53 | 200 27 | 44 50 |
| Middlesex.. | 128 16 | 172 16 | 199 80 | 215 04 | 278 06 | 352 61 | 224 45 | 137 57 |
| Worcester.. | 113 44 | 148 48 | 180 07 | 192 15 | 250 92 | 312 69 | 199 25 | 120 54 |
| Hampshire. | 101 31 | 112 74 | 144 99 | 163 60 | 185 20 | 236 21 | 134 90 | 72 61 |
| Hampden.. | 97 06 | 105 28 | 144 07 | 160 97 | 206 97 | 272 66 | 175 60 | 111 69 |
| Franklin.... | 78 91 | 102 38 | 127 78 | 146 21 | 184 01 | 227 29 | 148 38 | 81 08 |
| Berkshire... | 86 82 | 102 92 | 128 27 | 148 37 | 178 87 | 226 30 | 139 48 | 77 93 |
| Norfolk..... | 138 61 | 174 99 | 198 98 | 213 53 | 243 71 | 292 10 | 153 49 | 78 57 |
| Bristol..... | 84 80 | 115 32 | 143 95 | 158 95 | 228 80 | 324 00 | 239 20 | 165 05 |
| Plymouth... | 101 48 | 135 95 | 149 68 | 163 95 | 176 02 | 225 75 | 124 27 | 61 80 |
| Barnstable . | 49 49 | 77 12 | 86 15 | 99 28 | 123 74 | 150 44 | 100 95 | 51 16 |
| Dukes..... | 79 50 | 124 11 | 126 51 | 147 18 | 151 88 | 279 77 | 100 27 | 132 59 |
| Nantucket.. | 62 45 | 134 97 | 309 16 | 435 81 | 540 86 | 674 03 | 612 58 | 238 22 |
| | $116 22 | $170 43 | $207 50 | $293 42 | $342 15 | $406 50 | $290 28 | $113 08 |

It appears from this (IV.) table that the average amount of wealth among the inhabitants of all the counties, was greater at each later epoch than at the preceding, with the exception of Suffolk, from 1820 to 1840.

TABLE V.

*Exhibiting the Increase of Wealth in Massachusetts, according to the State Valuations, by Counties.*

| Counties. | 1790–1800. | 1800–10. | 1810–20. | 1820–30. |
|---|---|---|---|---|
| Suffolk.... | $7,536,650 83½ | $8,086,434 33½ | $38,426,762 50 | $20,198,629 06½ |
| Essex..... | 7,094,137 33½ | 3,190,708 66⅔ | 3,474,576 00 | 3,206,031 40½ |
| Middlesex | 2,602,162 16⅔ | 2,468,112 50 | 2,671,883 83½ | 8,459,154 00 |
| Worcester. | 2,641,307 83½ | 2,602,687 16⅔ | 2,458,790 66⅔ | 7,019,304 19 |
| Hampshire | 673,082 16⅔ | 980,007 50 | 773,196 00 | 1,269,922 53⅓ |
| Hampden.. | 607,126 33½ | 1,048,847 00 | 992,279 00 | 2,037,705 53½ |
| Franklin.. | 976,934 83½ | 811,190 66⅔ | 797,380 66⅔ | 1,150,926 83½ |
| Berkshire. | 842,471 00 | 1,124,793 00 | 687,439 66⅔ | 1,466,785 67½ |
| Norfolk.... | 1,452,677 00 | 1,454,671 50 | 1,570,371 83½ | 2,441,441 75⅔ |
| Bristol..... | 1,218,147 16⅔ | 1,443,356 16⅔ | 1,151,975 83½ | 4,844,356 49⅔ |
| Plymouth. | 1,170,488 50 | 872,669 16⅔ | 988,287 50 | 1,324,246 72⅔ |
| Barnstable. | 629,180 33½ | 425,639 16⅔ | 471,807 00 | 1,114,507 33½ |
| Dukes..... | 127,421 16⅔ | 29,243 00 | 68,312 00 | 49,617 91⅔ |
| Nantucket | 469,582 66⅔ | 1,346,338 66⅔ | 1,062,192 00 | 728,621 73½ |
| | $28,041,369 33½ | $25,884,198 50 | $55,595,254 50 | $55,311,251 21⅔ |

TABLE V. CONTINUED.

| Counties. | 1830–40. | 1790–1840. | 1820–40. |
|---|---|---|---|
| Suffolk..... | $29,755,738 75 | $104,004,215 50 | $49,954,367 83½ |
| Essex..... | 6,775,268 43 | 23,740,721 83½ | 9,981,299 83½ |
| Middlesex..... | 15,914,478 00 | 32,115,790 50 | 24,373,632 00 |
| Worcester..... | 8,637,675 31 | 23,359,765 16⅔ | 15,656,979 50 |
| Hampshire..... | 1,695,095 13 | 5,391,303 33½ | 2,965,017 66⅔ |
| Hampden..... | 3,640,081 51 | 8,325,539 37⅔ | 5,677,787 04½ |
| Franklin..... | 1,096,394 00 | 4,832,827 00 | 2,247,320 83½ |
| Berkshire..... | 2,802,278 42 | 6,923,767 76 | 4,269,064 09½ |
| Norfolk..... | 5,293,415 91 | 12,212,578 00 | 7,734,857 66⅔ |
| Bristol..... | 8,146,758 51 | 16,804,594 17½ | 12,991,115 00⅔ |
| Plymouth..... | 3,117,786 94 | 7,473,478 83½ | 4,442,033 66⅔ |
| Dukes..... | 1,396,683 00 | 4,037,816 83½ | 2,511,190 33½ |
| Barnstable..... | 573,176 25 | 847,770 33½ | 622,794 16⅔ |
| Nantucket..... | 2,179,085 60 | 5,785,820 66⅔ | 2,907,707 33½ |
| | $91,023,915 76 | $255,855,989 31 | $146,335,166 97⅔ |

TABLE VI.

*Exhibiting the Proportions per cent of the Increase of the Wealth in Massachusetts, by Counties.*

| Counties. | 1790–1800. | 1800–10. | 1810–20. | 1820–30. | 1830–40. | 1790–1840. | 1820–40. |
|---|---|---|---|---|---|---|---|
| Suffolk..... | 125.69 | 58.64 | 131.49 | 33.63 | 37.08 | 1,734.62 | 83.19 |
| Essex..... | 96.25 | 22.05 | 19.68 | 15.64 | 27.84 | 322.10 | 47.23 |
| Middlesex.... | 47.50 | 30.54 | 25.33 | 63.99 | 73.41 | 586.34 | 184.37 |
| Worcester... | 40.98 | 28.64 | 21.03 | 49.61 | 40.80 | 362.47 | 110.67 |
| Hampshire.. | 35.20 | 37.98 | 21.71 | 29.30 | 30.25 | 282.70 | 68.42 |
| Hampden..... | 37.95 | 42.44 | 28.20 | 45.17 | 55.58 | 446.91 | 125.87 |
| Franklin..... | 56.93 | 30.12 | 22.75 | 26.75 | 20.14 | 281.65 | 52.24 |
| Berkshire.... | 32.11 | 32.45 | 14.97 | 27.79 | 41.54 | 263.94 | 80.88 |
| Norfolk..... | 43.88 | 30.54 | 25.25 | 31.35 | 51.74 | 368.96 | 99.32 |
| Bristol..... | 45.29 | 36.94 | 21.52 | 74.49 | 71.79 | 624.91 | 199.78 |
| Plymouth.... | 36.33 | 19.87 | 18.75 | 21.17 | 41.14 | 232.00 | 71.04 |
| Barnstable... | 73.25 | 28.60 | 24.65 | 46.72 | 39.90 | 470.14 | 105.26 |
| Dukes..... | 49.08 | 7.55 | 16.41 | 10.24 | 10.73 | 326.60 | 128.52 |
| Nantucket... | 162.73 | 177.58 | 50.47 | 23.00 | 55.94 | 2,005.11 | 91.82 |
| | 63.69 | 35.91 | 56.75 | 36.02 | 43.58 | 581.16 | 95.31 |

Table VI. shows that while there has been an increase of the wealth in all the counties, this increase has been very different in the several counties. By comparing this table with the next, (VII.,) we perceive that the increase of wealth in the counties has been very different from, and much greater than that of the population, during every period, and in every county, except Suffolk, from 1820 to 1840. In that county, during these 20 years, though there was an absolute increase of wealth, its proportional increase was less than that of the population. During 20 years, from 1820 to 1840, the increase of wealth in all the counties, was 95.31 per cent, while that of the population was only 40.97 per cent, considerably less than half. During the 50 years, the increase of wealth was over six-fold, while that of the population was not doubled. The average increase to each person was nearly three-fold, from $116.22 to $406.50. (Table IV.)

The increase of the wealth of the State has been unequal in the several decennial periods, as will be seen by inspecting Tables V. and VI. It was the greatest from 1790 to 1800, a period distinguished by wars in Europe, in consequence of which the commercial part of the community derived great benefit from a neutral commerce. This increase is particularly manifest in those towns that were engaged in commerce and navigation, as Boston, Salem, Beverly, New Bedford, Nantucket, &c.

It will be perceived that the absolute increase of wealth during the 50 years, was $255,855,989.31, of which $146,335,166.97⅓, or about three-fifths of the whole, was during the last twenty years, and is to be referred to manufactures; while, during the preceding 30 years, the amount was only $109,520,822.33⅓, or about two-fifths of the whole. The rate of increase, however, during the period of 20 years, from 1790 to 1810, when the increase of wealth was owing chiefly to commerce, it being 122.48 per cent, was greater than during the last 20 years, in which the increase was owing mostly to manufactures. The increase from 1800 to 1820 was 113.06 per cent. The increase of wealth in Boston, from 1790 to 1810, was 260.56 per cent; from 1790 to 1820, 901.46 per cent; and from 1820 to 1840, only 83.9 per cent.

TABLE VII.

*Exhibiting the Increase per cent of the Population of Massachusetts, according to the United States Censuses, by Counties.*

| Counties. | 1790–1800. | 1800–10. | 1810–20. | 1820–30. | 1830–40. | 1790–1840. | 1820–40. |
|---|---|---|---|---|---|---|---|
| Suffolk..... | 37.21 | 33.33 | 27.80 | 41.47 | 54.06 | 409.64 | 117.96 |
| Essex..... | 5.66 | 17.47 | 3.84 | 10.98 | 14.63 | 64.01 | 27.23 |
| Middlesex .... | 9.80 | 12.48 | 16.44 | 26.80 | 36.74 | 149.45 | 73.43 |
| Worcester .... | 7.72 | 6.07 | 13.42 | 14 57 | 12.99 | 67.78 | 29.45 |
| Hampshire.... | 21.58 | 7.28 | 7.87 | 14.29 | 2.12 | 64.12 | 16.64 |
| Hampden..... | 22.24 | 4.08 | 14.74 | 12.91 | 18.10 | 94.68 | 33.34 |
| Franklin..... | 20.95 | 4.26 | 7.28 | 0.72 | —2.76 | 32.51 | —2.05 |
| Berkshire..... | 11.44 | 6.28 | —0.60 | 6.31 | 10.71 | 38.16 | 17.38 |
| Norfolk..... | 13.97 | 14.80 | 16.72 | 15.08 | 26.60 | 122.54 | 45.70 |
| Bristol..... | 6.84 | 9.70 | 10.06 | 21.22 | 21.31 | 89.74 | 47.07 |
| Plymouth..... | 1.77 | 9.18 | 8.43 | 12.86 | 10.05 | 49.25 | 24.22 |
| Barnstable .... | 11.17 | 15.12 | 8.17 | 18.67 | 14.14 | 87.55 | 35.46 |
| Dukes..... | —4.19 | 5.51 | 0.00 | 6 83 | 12.53 | 21.22 | 20.23 |
| Nantucket .... | 21.58 | 21.18 | 6.74 | —0.88 | 25.13 | 95.06 | 24.02 |
| | 11.63 | 11.63 | 10.85 | 16.64 | 20.85 | 94.75 | 40.97 |

TABLE VIII.

*Exhibiting the Wealth of Six Towns in Massachusetts, according to six State Valuations.*

| | 1790. | 1800. | 1810. |
|---|---|---|---|
| Boston | $5,854,053 66⅔ | $13,377,779 33⅓ | $21,456,960 00 |
| Salem | 1,344,212 50 | 4,346,526 83⅓ | 5,459,353 66⅔ |
| Charlestown | 259,747 00 | 731,043 16⅔ | 1,281,173 16⅔ |
| Chelmsford and Lowell | 158,545 83⅓ | 196,935 00 | 210,996 33⅓ |
| New Bedford and Fairhaven | 291,205 16⅔ | 722,185 66⅔ | 1,566,615 83⅓ |
| Nantucket | 288,553 33⅓ | 758,136 00 | 2,104,474 66⅔ |
| | $8,196,317 50 | $20,132,606 00 | $32,079,573 66⅔ |

TABLE VIII.—CONTINUED.

| | 1820. | 1830. | 1840. |
|---|---|---|---|
| Boston | $59,759,466 66⅔ | $80,000,000 00 | $109,304,218 50 |
| Salem | 8,115,597 33⅓ | 8,515,091 75 | 10,218,109 00 |
| Charlestown | 1,848,608 00 | 2,441,167 00 | 4,033,176 39 |
| Chelmsford and Lowell | 266,566 33⅓ | 2,757,039 00 | 10,604,336 90 |
| New Bedford and Fairhaven | 2,188,427 16⅔ | 3,960,817 15 | 7,697,291 30 |
| Nantucket | 3,176,666 66⅔ | 3,895,288 40 | 6,074,374 00 |
| | $75,345,332 16⅔ | $101,569,403 30 | $147,931,506 09 |

TABLE IX.

*Exhibiting the Increase of Wealth, and the Proportions of Increase in Six Towns in Massachusetts, according to six State Valuations.*

I. AMOUNT OF INCREASE.

| | 1790-1800. | 1800-10. | 1810-20. | 1820-30. |
|---|---|---|---|---|
| Boston | $7,523,725 66⅔ | $7,079,180 66⅔ | $38,302,506 66⅔ | $20,240,533 33⅓ |
| Salem | 3,002,314 33⅓ | 1,112,826 83⅓ | 2,656,243 66⅔ | 399,494 41⅔ |
| Charlestown | 471,296 16⅔ | 550,130 00 | 567,434 83⅓ | 592,559 00 |
| Chelmsford, Lowell | 38,389 16⅔ | 14,061 33⅓ | 55,570 00 | 2,490,472 66⅔ |
| N. Bedford, Fairh'n | 430,980 50 | 844,430 16⅔ | 621,811 33⅓ | 1,772,389 98⅓ |
| Nantucket | 469,582 66⅔ | 1,346,338 66⅔ | 1,062,192 00 | 728,621 73⅓ |
| | $11,936,288 50 | $11,946,967 66⅔ | $43,265,758 50 | $26,224,071 13⅓ |

AMOUNT OF INCREASE—CONTINUED.

| | 1830-40. | 1790-1840. | 1820-40. |
|---|---|---|---|
| Boston | $29,304,218 50 | $103,450,164 83⅓ | $49,544,751 83⅓ |
| Salem | 1,703,017 25 | 8,873,896 50 | 2,102,511 66⅔ |
| Charlestown | 1,592,009 39 | 3,773,429 39 | 2,184,568 39 |
| Chelmsford & Lowell | 7,847,297 90 | 10,445,791 06⅔ | 10,337,770 56⅔ |
| New Bedford & Fairhaven | 3,736,474 15 | 7,406,086 13⅓ | 5,508,864 13⅓ |
| Nantucket | 2,179,085 60 | 5,785,820 66⅔ | 2,907,707 33⅓ |
| | $46,362,102 79 | $139,735,188 59 | $72,586,173 92⅓ |

TABLE IX. CONTINUED.—II. PROPORTIONS PER CENT OF INCREASE.

| | 1790-1800. | 1800-10. | 1810-20. | 1820-30. | 1830-40. | 1790-1840. | 1820-40. |
|---|---|---|---|---|---|---|---|
| Boston | 128.52 | 60.39 | 178.50 | 33.86 | 36.33 | 1,765.15 | 82.90 |
| Salem | 223.35 | 27.90 | 48.65 | 4.92 | 19.99 | 660.15 | 25.90 |
| Charlestown | 181.44 | 75.25 | 43.82 | 32.05 | 65.21 | 1,452.72 | 118.17 |
| Chelmsford & Lowell. | 24.21 | 7.14 | 26.33 | 934.27 | 284.62 | 6,588.49 | 3,878.12 |
| N.Bedford&Fairhaven | 147.99 | 116.92 | 39.69 | 80.98 | 94.33 | 2,543.25 | 251.72 |
| Nantucket | 162.83 | 177.58 | 50.47 | 22.97 | 55.94 | 2,005.11 | 92.13 |
| | 145.62 | 59.28 | 134.87 | 34.80 | 45.64 | 1,704.85 | 96.33 |

The whole increase of the wealth of the State, from 1790 to 1840, was $255,855,989.31, which is nearly six times $44,024,349, the whole value in 1790. The amount of increase in three towns, (Table VIII.,) namely, Boston, Chelmsford, including Lowell, and Salem, was $122,769,852.40, or half of the whole increase within $5,158,142.25½. If we take the six towns in this table, we perceive that their increase was $11,807,193.93½, more than half of the whole increase. There was, indeed, an increase throughout the Commonwealth, but exceedingly various in the different towns. The increase of the wealth of the State, from 1820 to 1840, was $146,335,166.97½, one-half of which is $73,167,583.48½, which is only $581,409.56½ more than the increase of the above six towns.

During the 20 years from 1820 to 1840, there was a decided falling off in the proportion of wealth, and in the average amount per head among the inhabitants of Suffolk, constituted chiefly by Boston, (Tables II. and IV.,) though there was a large increase of the population of that county, (Table III.) This is the only county in which there was a decrease of wealth per head. It may seem, at first view, from the localities of wealth in 1840, that the people of Suffolk, on an average, were poorer, or possessed less wealth per head than they did 20 years before; but it should be recollected that a large portion of this increase of wealth, though located in other counties, as of railroads and manufacturing establishments, is the property of residents of Suffolk, to say nothing of the large amounts of capital which they have invested in similar enterprises out of this Commonwealth. Instead of becoming poorer on an average, we apprehend that the reverse has been the case, and that the inequality in the distribution of wealth was greatly increased, during this period, in favor of those who live in Suffolk. We apprehend that throughout the Commonwealth, in the progress of society, with the advance of manufactures, greater dependence is a necessary consequence, and greater inequality of wealth a usual, if not invariable concomitant. It is the opinion of many that the proportion of real estate owners was, during this period, decreased, and especially that the proportion of unincumbered real estate was decreased.

The amount of wealth in Massachusetts, in 1840, was $299,880,338.31, averaging to each individual, $406.50. Nearly six-sevenths of the whole amount is the increase of the last 50 years.

This amount of wealth is the accumulation of over two centuries, and comprehends not merely the value of the soil, but the result of the toil and saving of the people during these centuries, together with what they and their fathers brought from abroad, or gained by commerce.

The whole number of persons who have lived in Massachusetts during the 50 years from 1790 to 1840, is computed to be equivalent to 26,003,922 persons living *one* year, or 520,078 living through *each* year during the period. If we divide by 26,003,922, $255,855,989.31, the whole increase of wealth during the 50 years, according to the State valuations, we obtain $9.83 as the average annual increase to every individual that lived; and $491.97 as the aggregate increase to the average number of persons living during the 50 years.

The average amount of wealth to each individual in the Commonwealth, in 1840, was $406.50, having been increased to each person living, $290.28, or from $116.22, during the 50 years preceding. This amount of $406.50 per head, seems to be small, but in reality it is larger than the average is in almost any other State in the Union. We perceive

from this, that *most of the earnings of a community are consumed in the year that is passing, and but little remains to be added to what was possessed the year before.*

The whole population of Massachusetts, in the year 1840, was 737,700, as follows:—

| | White Males. | White Females. | Total Whites. |
|---|---|---|---|
| Census of 1840 | 360,679 | 368,351 | 729,030 |
| Under 15 years | 125,580 | 122,260 | 247,840 |
| 15 years and upwards | 235,099 | 246,091 | 481,190 |
| | Colored Males. | Colored Females. | Total Col'd. |
| Census of 1840 | 4,654 | 4,016 | 8,670 |
| Under 24 years | 2,027 | 1,958 | 3,985 |
| 24 years and upwards | 2,627 | 2,058 | 4,685 |

| | |
|---|---|
| The value of the whole property of Massachusetts, in 1840, was $299,880,338.31, and the interest on that amount, per annum, is | $17,992,820 30 |
| The number of white males, of 15 years of age and upwards, in 1840, was 235,099, whose aggregate of earnings, at $320 each, per annum, is | 75,231,680 00 |
| The number of white females of 15 years of age and upwards, in 1840, was 246,091, whose aggregate of earnings, at $100 each, per annum, is | 24,609,100 00 |
| The number of colored persons, of both sexes, over 24 years of age, in 1840, was 4,685, whose aggregate earnings, at $75 each, per annum, is | 351,375 00 |
| And we have, as the annual amount of income | $118,184,975 30 |
| From which deduct, for the annual accumulation of wealth, according to the average accumulation for 50 years, at $9.83 per head, for 737,700 inhabitants | 7,251,590 00 |
| And we have | $110,933,385 30 |

As the annual consumption of the people; which, divided by 737,700, the number of inhabitants in 1840, gives $150.37 as the average annual amount for the support of an individual in Massachusetts.

This amount of expenditure, or cost of living, $110,933,385.30, may be distributed somewhat as follows:—

| | |
|---|---|
| One-quarter, or 25 per cent of the whole, for rents or their equivalents | $27,733,346 32½ |
| Aggregate amount of provisions, eatables and drinkables, at $1.25 per week, on an average, to each person | 47,950,500 00 |
| Aggregate value of clothing, at $30 per annum, on an average, to each person | 23,131,000 00 |
| For education, charity, amusements, luxuries, &c. | 12,118,538 97½ |
| Total | $110,933,385 30 |

The income, or productive value of all the property and industry of the people of Massachusetts, amounting to $118,184,975.30, indicates what is equivalent to a capital of $1,969,740,588.33, at interest at 6 per cent per annum; of which sum only $299,880,338.31, or but little more than one-seventh part, is taxable property, while nearly six-sevenths of the whole is derived from the industry of the people of this Commonwealth, applied to the raw material, and aided by whatever there is of fertility in the soil. In fact, as a community, we are dependent for a living, and for the ordinary comforts of life, upon the continued industry of the people, not merely during the year, but during every week and day of the year.

As the population of Massachusetts has become more dense, and the manufactures have increased, the modes of living have changed, the dependences of individuals upon each other for the necessaries of life have multiplied, and a greater demand has shown itself for every species of property to supply the wants of society. In this way, some items of property have greatly accumulated, and prices of real estate have greatly risen.

Besides, the increase of dependences requires a greater amount of a circulating medium, which in turn inflates in some degree the value of property. To some extent, the State valuations, though furnished by the assessors of the several towns, and regularly increasing in every town, during every period, seem to be affected by the increase of a circulating medium, and by the increased amount of barter for the necessaries of life.

By consulting the annual bank returns of this Commonwealth, we find that for the 18 years from 1803 to 1820, the average amount of bank capital, *per annum*, was $7,772,068, or $16 to each inhabitant, while for the 20 years from 1821 to 1840, it was $23,163,771.60, or $37 to each inhabitant. The proportion of population to bank circulation averaged as 1 to 4 during the 18 years, and as 1 to 11 during the 20 years.

This increase in the banking capital was rendered necessary for the conveniences of the community, who formerly were chiefly engaged in agricultural pursuits, except those living on the seaboard; but during the last twenty years, the agricultural interest has remained stationary, and the whole increase has been substantially of those engaged in manufactures.

In a community where the currency is convertible into the precious metals, the prices of articles, or the value of property, will depend very much upon the amount of those metals on hand or at command, or supposed to be so, as well as upon the numbers of those who seek the same property. But considering that there has been a uniform increase of wealth in every town, county, and range in this Commonwealth, during each decennial period, and an increase, too, depending upon causes well known, and having a certain proportionality to the number of inhabitants, the kind of their employment, and the general prosperity of the community, we regard the six valuations, prepared from materials furnished by the assessors of over 300 towns, and which materials were sanctioned as substantially correct by the acquiescence of all the tax-payers of those towns, and published by authority of the Commonwealth, as not merely containing a very near approximation to the truth, but all which it is important to know, for comparing the wealth of the several parts of the Commonwealth, at six epochs, from 1790 to 1840.

The increase of the wealth of Massachusetts, during the 50 years from 1790 to 1840 was nearly six-fold, or three times as great as that of the population. The increase of wealth was in every town, during every decennial period; but very unequally, to be sure, in the several towns during some of the periods. It may, however, be doubted whether, notwithstanding the increase of wealth, there has been an increase of the means of happiness; in other words, whether more happiness has been enjoyed or prospectively secured to the people of this Commonwealth. This is certain, that important changes have taken place in the habits of the people, and in the modes of living. It would be interesting to inquire, for example, into the comparative number of land owners, in 1790 and 1840, and the comparative freedom of real estate

from mortgages at those epochs, from which important inferences might be drawn, respecting the comparative inequality of wealth at those epochs among the mass of the people.

The habits of the people have been essentially changed since 1790. We conclude this article by an extract from an article on the "Banks of Massachusetts," published in the February number of the Merchants' Magazine for 1840, simply premising that the amount of manufactured articles, which, in 1836, was $86,282,616, with 117,352 hands employed, in 1845, nine years after, was $114,478,448, with 152,760 hands employed:—

"But it is the *circulation* in its relation to the habits and condition of the people, to which we would particularly direct the attention. This has risen, during the period in question, from $1,565,189, in 1803, to $10,892,249 50, or been increased seven-fold, and per head five-fold, in 1836. Its average, per head, for the thirty-seven years, has been $8 07, or more than double what it was in 1803. What does this increase of paper currency indicate and imply? It implies a change in the habits and condition of the people. It implies that the greater amount of a paper currency (for we may suppose that the proportion of specie among the people has been, during the whole period, and is now, as great as it was in 1803) has been *used* in the way of trade—of buying and selling; that the people have come into the habit of buying more than they used to; that they have come into the habit of living less within themselves; and that they have become more dependent upon others than they formerly were.

"It is well known that the habits of the mass of the people have greatly changed during this period, as is indicated by the currency alone. The value of the products of certain branches of industry in Massachusetts, for the year ending April 1, 1837, was estimated at $86,282,616; and the hands employed, at 117,352—over a seventh part of the population. A large portion of this business has been created in the last thirty-seven years; in other words, a larger proportion of individuals was then employed, and a larger proportion of manufactured articles produced, than in 1803; and we presume that it is not materially different now from what it was three years ago. Thus the attention and labor of many have been diverted from other pursuits, especially agricultural, to various manufacturing pursuits, which have rendered them more dependent for the necessaries of life upon others, and also others more dependent upon them for manufactured articles, which at length have become necessaries to all. The people, formerly, wore homespun, now they wear factory and imported cloths and silks; formerly, they subsisted chiefly upon provisions of their own raising, now they rely much more upon foreign produce. In fact, if we survey the houses, the furniture, the luxuries—in fine, the whole apparatus of living, we shall find that, in the last thirty-seven years, the habits of the people of Massachusetts, their labors and occupations, have rendered them more dependent upon others and upon foreign countries. Should this circulation be greatly and suddenly diminished, or wholly withdrawn, without a substitute, it would be attended with great distress among thousands and tens of thousands. It would take a long time, if it were possible, for them to return to their former habits and condition."

J. F. Entz

## Art. II.—ANNUITIES, LIFE INSURANCE, TONTINES, &c.

NUMBER II.

In a former communication, contained in the January number of the "Merchants' Magazine and Commercial Review," (Vol. XV., No. 1.,) I endeavored to show the astonishing effect produced by a systematic accumulation of small amounts, through the agency of compound interest; and to explain, in a few practical examples, the great benefits which may be secured in a variety of cases and positions, by the application of the principle. This salutary result is still more enhanced, when, besides the interest of money, the chances of life are also taken into consideration.

Human life may, with some truth, be compared to a great race, in which nearly every individual starts with equal hopes, and almost equal chances, of reaching the goal, or at least an average term of life. From his infancy he prepares for his future career,—wishing and expecting to enjoy a long, happy, and successful one; but alas! a few only will ever reach the extent of their hopes. Sickness, accidents, and premature death, put a sudden stop to the sanguine expectations of some, while others meet with reverses of fortune, and are condemned to live in a state of poverty and want. Comparatively few only are more lucky, and either arrive at an old age, or they are successful in all their enterprises, and blessed with a gratification of their wishes.

The system of annuities and life insurance is calculated to avert, in a pecuniary respect, the evil consequences of this uncertainty of our existence, to equalize the fluctuations and sudden changes in life, and offers an opportunity to every individual, in proportion to his means, and according to his peculiar position and fears, to provide for every emergency, and to shelter himself from the dreadful necessity of being dependent upon the charity of others; and this he can do, by the sacrifice of some luxuries, by increased economy, or by the judicious employment of surplus means in time of youth, health, and prosperity.

A number of individuals, none of whom can say that he is exempt from the dangers above alluded to, no matter how rich, how healthy he may be at the time, can associate together, each contributing at once, or in partial payments, a certain amount, in proportion to the risk he wishes to cover, forming thus a common fund, out of which the parent will procure the means for the education and establishment of his children, or the support of his family after his death. The husband can secure his widow an income for the rest of her life, the industrious mechanic can lay up a certain sum, to be received at an age when he is desirous to quit his daily work; and many other equally desirable benefits.

It is to be regretted, and most surprising, that in a country where every useful discovery is immediately copied and improved upon, annuities and endowments should have attracted so little attention and been so seldom resorted to; while, for a number of years past, Europe has placed such a good example before us,—the advantages of the system having become there so universally known and appreciated. We have, it is true, some public institutions, where "immediate annuities and endowments for children" are granted, and the terms published; but while the former are only suitable for a small class of people, of very old age, having no relatives to leave the money to, and wishing to make the most of it while they live,

the latter show no advantage whatever, from the age of four upwards; as, with $100 placed into a savings bank to accumulate at 5 per cent compound interest, $229.20 is produced at the age of twenty-one, without losing the money in case of death, while only $225.42 is allowed by the companies. Other benefits may also be obtained, but the terms are not made public, and their nature and advantages remain unknown.

The English companies, on the contrary, take great pains to make the various benefits well known, explaining them in a very simple and intelligible manner, giving tables of rates, and many practical examples in their prospectuses, and raising thereby the attention of the reader, who easily discovers the advantages which either of the various branches would afford him in his peculiar position; and many, who otherwise would never have dreamed of it, may find some remedy for their own wants. To this circumstance must be principally attributed the extent to which their operations have reached, and the benefits which they have spread over the whole community, saving many a family from poverty and distress.

The rate of interest being so much higher in this country than in Europe, with every prospect to remain the same for many years to come, the development of our immense and daily increasing resources, creating a constant demand and steady employment for money, it remains only to examine what better terms we are able to establish, in introducing and promoting the system on the most liberal and advantageous principles.

My principal object being to show, in a few practical examples, in what manner persons in different situations would be benefited, and not to dictate terms at which it should be done, those which at present are charged not being sufficiently known to me, nor, in my opinion, liberal enough, money being worth more than the rate at which calculations are generally made, I take 5 per cent as the ground-work for these examples, deeming this a fair standard, and leaving a good margin for any fluctuations in the value of money for permanent investments.

The selection of a proper table of mortality for these calculations is of no less difficulty than of importance. Those generally used for the purposes of life insurance do not answer for annuities, at least not without making some adequate allowance. They all represent the mortality to be far greater than in reality it is believed to be; and no tables have ever been constructed which could implicitly be adopted for that purpose, and entirely depended upon with unreserved confidence. If a bargain for life insurance is made, and the premiums are calculated by a table showing the average term of life to be shorter than it really is, it is evident that the payment of the stipulated sum will be protracted, and more premiums will be received, placing the office on the safe side; and, indeed, some offices derive their immense profits from this source, and from the premiums being thereby enhanced. But in the case of annuities it is just the reverse; for if the person lives longer than contemplated by the tables, the office will be the loser. I have carefully examined and compared the following tables, viz., the Carlisle, the Equitable Experience, the Actuaries' Combined Experience, Mr. Finlaison's Government Table, the English Life Table, the Northampton, Ansell's Friendly Societies' and the Amicable Experience. The result was, that the three first are, if not the nearest to truth, at least the safest and the most profitable for the computation of annuities. I have selected the Carlisle table as the basis for my examples, above the age of 21; while, for the earlier ages from birth, I have formed a table from

the reports of the Registrar-Genêral of England, agreeing very closely with the observations made in Paris on a large scale, as given in the "Annuaire du Bureau des Longitudes."

I would not, however, pretend to recommend either of them as a standard for an office, in the absence of more accurate information, unless some slight addition were made to the price of a purchase, as it cannot be expected that any company would guarantee the payment of annuities too strictly calculated, without a sufficient margin to cover expenses, to compensate any incorrectness of the tables, and to produce a moderate profit, though the difference between the 5 per cent and the rate at which investments can be made, is an item of some consequence.

Annuities, as well as life insurance business, can only be conducted with perfect safety, by an association on a large scale, as a large number only of individuals will produce an average and be a guard against fluctuations; but it is not necessary that each separate branch or benefit should consist of many members, as every one joining, though for different purposes, increases the security.

The price, or premium charged, whatever may be its nature, is measured by the degree of risk produced to the whole concern, and the difference of age, the amount secured, the period of payment, the time of joining, and the kind of risk, are all taken into consideration; the interest of each party is therefore equalized, and each stands on a footing of equality and proportion with the others.

### IMMEDIATE ANNUITIES.

The principle of this kind of annuities is, that an office undertakes to return to the annuitant all the money received, with the interest thereon, in regular periodical payments, which, being larger than the interest, will gradually absorb the principal, and when the party arrives at the average term of life, the whole amount is gone. If the party lives beyond that time, the office loses; and if he dies before, the remainder of the sum originally deposited, becomes the property of the company. If 1,000 persons, all of fifty years, joined together, whose expectation of life, per Carlisle table, is 21.11 years, 13 would die the first year, 14 the second year, and after 21 years, only 518 would be remaining, whose annuities would of course continue until their death; but the profit made on those deceased before the age of 71, would compensate the loss on those surviving.

The following extract from the rates of several offices, shows that we allow a larger per centage for every $100 than any other country:—

| | Ages— | 40 | 50 | 60 | 70 | 75 |
|---|---|---|---|---|---|---|
| New York Life Insurance and Trust Co. | males | 7.38 | 8.50 | 10.68 | 15.16 | 19.47 |
| | females | 7.03 | 7.87 | 9.68 | 13.57 | 16.85 |
| Philadelphia Pennsylvania Company | | ..... | 7.72 | 9.47 | 12.87 | 16.39 |
| London Royal Naval, Military, and East India Company | males | 6.65 | 7.92 | 10.07 | 14.27 | ..... |
| | females | 6.13 | 6.97 | 8.72 | 12.37 | ..... |
| London National Loan Office | | 6.26 | 7.40 | 9.71 | 14.12 | 17.78 |
| London Family Endowment Society | | 6.63 | 7.77 | 10.35 | 14.90 | 19.08 |
| Paris L'Union | | 6.09 | 7.39 | 9.37 | 11.76 | 13.00 |
| Lubeck Lebensversicherungs Anstalt | | 5.76 | 6.45 | 8.10 | 11.28 | 14.62 |
| Trieste Assicurazioni Generali | | 6.74 | 7.94 | 9.95 | 13.12 | 14.45 |

The rates of the above foreign offices are for an annuity payable annually, while the New York Company above mentioned pays it semi-annually without extra charge.

Immediate annuities are useful—1st, to a person who, having no relations to whom to bequeath his money after death, obtains thereby a higher rate of interest for it than any other investment would produce; 2d, as a legacy in favor of some aged relative, friend, or faithful servant; 3d, to clear an estate of a life-interest, substituting for the same an annuity.

### TEMPORARY ANNUITIES.

If an association were formed of individuals of different ages, each contributing, in one sum, $100, for the purpose of dividing the principal and interest during ten years, those aged 40, 50, 60, and 70, would be entitled to receive $13.91, $14.02, $15.68, and $18.66, annually; because if the deaths occurred according to the tables, the above payments would absorb the whole fund in that space of time. An annuity certain for ten years, would have produced only $12.95; but as, in the former case, the number of members is constantly diminishing, their forfeited shares enhance those of the survivors. This description of annuities is but seldom resorted to; cases in which they may be useful occurring very rarely.

### DEFERRED ANNUITIES.

Deferred annuities may be procured by a single payment, or by regular annual instalments, and are payable after the person arrives at a certain age. By the payment of $100 at the age of 20, an annuity of $131.64 could be procured, to commence at the age of 60, and to continue for the remainder of life; and by the annual payment of $10, commencing at the age of 20, and continued regularly until the age of 60, the above annuity would amount to $210.06.

It will be remarked that in this mode a very small sum paid at an early age, or still smaller amounts paid annually, would secure an adequate income for old age.

| An annuity of $100, to begin at the age of | 50 years, | 60 years, | 70 years, |
|---|---|---|---|
| would require, in one sum, paid at 20..... | $194 79 | $75 96 | $21 78 |
| " " " 30..... | 342 48 | 133 56 | 48 22 |
| " " " 40..... | 620 19 | 243 54 | 69 36 |
| " " " 50..... | ... ... | 457 88 | 130 40 |
| and in annual paym'ts, commenced at 20..... | 13 25 | 4 76 | 1 31 |
| " " " 30..... | 28 53 | 9 38 | 3 16 |
| " " " 40..... | 81 00 | 20 81 | 5 13 |
| " " " 50..... | ... ... | 60 22 | 11 69 |

Thus, a young man of 20, with the trifling sum of $1.31, paid annually, would secure an annuity of $100 after the age of 70, if he then lives, and with $104.51 paid annually, a man 40 years old can purchase an income of $500 after the age of 60, or with $25.65, from the age of 70. A husband may, with a small sum, purchase an income for his wife, to commence at a certain age; and a mechanic who has to depend upon his daily labor, can gradually lay the foundation for a sufficient income for old age.

The cases in which deferred annuities may become of great benefit are very numerous, and it would require more space than would be allotted to me, if I were to enumerate them; but I cannot refrain from relating a singular, and no doubt very good suggestion, made by an eminent actuary of London, as a substitute for the very unpopular poor rates of England:—

"To enforce the payment from every parent, of every rank and station, rich or poor, for every child born, and annually afterwards, of such a sum as would secure an annuity during the whole of life, after a given age.

"In the event of the parent being unable to provide the means, then the parish to which he belongs to be compelled to supply the requisite funds, until the child shall attain the age of twenty-one.

"The child, on attaining the age of twenty-one, to be required not only to reimburse, by instalments or otherwise, the sums advanced by the parish for his future and exclusive benefit, but also the annual payments, until the period prescribed for entering upon his annuity.

"Supposing, also, to give efficiency to this system, the legislature enacted that the sale, purchase, transfer, or assignment, directly or indirectly, in any way, by or to any person whatever, should be considered, prosecuted, and punished as a misdemeanor.

"The annual sum of 14s. 3d. paid for every child so soon as born, and continued to be paid until he reached the fiftieth year of his age, but to cease should he die in the interval, would be required for an annuity of £20, to be then entered upon and enjoyed during the remainder of his life, (Northampton table, at 4 per cent.) Only a few shillings per annum, treasured up in the days of manhood and vigor, to secure the valuable reversion of a home and a crust in the evening of old age and helplessness! Would that such a self-supporting system of relief were carried into active operation! then, indeed, would the condition of the poor be ameliorated, and want and destitution banished from the land forever!"

### DEFERRED TEMPORARY ANNUITIES.

Among other benefits which this description of bargains offers, the following claims particularly the attention of parents for the facility it presents to prepare in a most advantageous manner the means for the education of children. We will suppose that they require an outlay of $100 a year when they arrive at the age of 12, until they are 21 years of age, and that it is desirable to make provision at once, in a single sum, or by gradual easy instalments. (English Life Table; interest, 5 per cent.)

| If the benefit is to be commenced at the age of.... | 12 years, | 16 years, |
|---|---|---|
| requiring, therefore, payments of $100 each..... | 10 pay'ts, | 6 pay'ts, |
| it would cost in one single sum, paid at birth..... | $267 26 | $139 87 |
| or for a child at the age of 3 years..... | 426 89 | 223 42 |
| or for a child at the age of 6 years..... | 523 35 | 273 91 |
| Or, in annual payments, ceasing one year before the benefit begins,—for a child just born..... | $35 80 | $16 33 |
| for a child of 3 years old..... | 60 59 | 25 29 |
| for a child of 6 years old..... | 100 37 | 34 90 |
| And if it was desired to divide the premiums upon a much longer period, the last to be paid at the age of 20, it would reduce the annual payments, for a child just born, to..... | $26 28 | $13 76 |
| for a child of 3 years old..... | 37 54 | 21 36 |
| for a child of 6 years old..... | 49 79 | 26 06 |

It will be easily understood that the child may die without reaping any, or only part of the benefits expected, and that the premiums would then be lost; but it may be so arranged with a company to have the same returned in case of such an event, without increasing materially the expense.

## Art. III.—COAL AND IRON TRADE OF THE OHIO VALLEY.

The coal and the iron fields that exist between the Alleghany Mountains and the Mississippi River, are commensurate in extent, because the strata of ironstone and coal alternate with each other. Iron is, it is true, a mineral not confined to one rock or formation, but ranges from the primitive rocks, up through the sedimentary strata, to the recent alluvion. But the world over, it is a geological law, that the coal-bearing rocks are composed in sensible quantities of the ores of iron; so that an explorer, having discovered that he is in the midst of the carboniferous system, expects to find beds of iron with as much confidence as he expects coal.

This metal may not be so abundant in all parts, as to be of economical value; but strata of greater or less thickness may be relied upon, as forming part of the regular geological structure of the country. Thus we may foresee the immense product of iron that the Western coal fields will, of certainty, yield to posterity.

During the past two years, four furnaces have been built on the Mahoning Canal that use raw bituminous coal, in lieu of charcoal, in reducing ores. Three of them are in the county of Mahoning, Ohio, at Youngstown and Lowell, and another at Tallmadge, near Akron, in Summit county. Two of them have been in operation long enough to test the project, and the results are, that good pig metal can be produced in this way at less cost than with charcoal. The consequences of this experiment, and its success, are prodigious. Ores, that are called "harsh" by the founders, containing silicious matter, and therefore refractory and expensive, are found to be more easily reduced by the concentrated heat and blast of the coal furnace than by the charcoal stack. The limit to the manufacture of iron, is thus not restrained by the want of timber; nor are the woodlands of the country destroyed to supply the furnaces. Mineral coal being literally inexhaustible, the only bounds to the production of iron, are the supply of ore and the demand for the article. Coal and coal lands, become thus of higher importance in the economy of a country, and of more local value.

Geological investigations have gone so far as to determine, with general accuracy, the boundaries of the Alleghany coal field. It is of an oblong form and somewhat irregular, the longest axis extending Northwest and Southwest, from the neighborhood of Meadville, Pennsylvania, to that of Huntsville, Alabama, nearly 600 miles in length. It is widest at the Northern part, tapering to a point at the Southern extremity. Its breadth is greatest at Pittsburgh and Wheeling, where the Ohio River occupies a central position, and its thickness at the centre is estimated at 2,000 to 3,000 feet. By this is meant, that all the strata of sandstone, shale, coal, limestone, and ironstone, that compose the coal series or "formation," from the conglomerate, the base of the formation, to the top of the same, are, inclusive, so many feet thick.

The region occupied by these strata is called a basin, or a coal basin, because the strata plunge towards a common centre, or central line; so that a boring, or well, made in the valley of the Ohio River, at or near Wheeling, would pass through 2,000 or 3,000 feet of these rocks before reaching the conglomerate, which is seen at the surface, at Akron on the West, and at the summit of the Alleghanies on the East. In *physical*

*level*, the Eastern outcross of the lowest bed of coal is *higher* than the surface of the upper beds of coal; but in geological order of super-position, it is *lowest* of all. For instance: the bed which is worked near the station-house of the Portage Railroad, is the one at the bottom of the series, but is 2,000 feet above tide-water. The beds in the neighborhood of Wheeling are higher up in the series, and 2,000 or 3,000 feet above the continuation of the Portage summit bed, extending Westward to that place; but the Ohio River is here only about 640 feet above the ocean, and the hills adjacent about 300 feet more. The bottom of the coal strata, is therefore 1,500 or 2,000 feet below the surface of the ocean. Such is the result of a gradual plunge, continued through long distances; the lower bed of coal, having descended from the summit of the Alleghany Mountains, 2,000 feet above the sea, to a point as many feet below it, and then rising towards the West, appears at the surface, on the other side of the basin, at Akron and Newcastle, 900 to 950 feet above the ocean level. The distance between the two sides of the field or basin, on its lesser axis, is about 200 miles.

The entire number of coal and iron strata, embraced in this mass, is not known; but if we could penetrate it from top to bottom, or make a vertical section, as we are enabled to do by observing the face of the rocks at various points, we should probably find at least fifty strata of coal, and more than twice that number of ironstone, lying in regular order one above another. Of these, twenty or twenty-five of the coal strata might be workable; or say, three feet thick and upwards, to six feet; and of the iron, more than one-half would pay for stripping, at the edges around the hills. In Lawrence county, Ohio, on the Western verge of the field, where the strata dip gently to the Eastward, in the vertical space of about 800 feet, there are seen *four* workable strata of coal, and *eight* of iron, with many more regularly stratified beds of less thickness. Here, a bed of coal less than three feet, is not considered valuable; and ore is thought worth stripping, when an inch may be had by removing a *foot* of earth. All parts of this great field may not be as rich, but some are known to be more so; and iron is found, in several instances, outside of the coal region. Here is an area, therefore, larger than all England and Scotland, over which furnaces may be supported, if a demand for iron could by possibility arise equal to such a capacity for production.

On the Lower Ohio, in Kentucky, Indiana, and Illinois, is another basin, or field, of coal and iron, of large dimensions, but detached from the one above noticed. It is also oval in form, and more regular than the Alleghany field; its greatest length being in a Northwesterly and Southeasterly direction, from the Northwest angle of Illinois, passing the mouth of the Cumberland to the South line of Kentucky, say 300 miles. It embraces a large portion of Illinois, several of the Southwestern counties of Indiana, and four or five of the Green River, Tennessee, and Cumberland River counties, in Kentucky. But because a large part of the tract is level, the strata do not cross out advantageously for mining; and their edges are seen principally on the banks of streams and collateral valleys, that part out from the main ones. The mineral power of this region is but little understood. At Honesville, and a few other points, coal is furnished for steamboats and taken to New Orleans.

Beyond the Mississippi, in Missouri and Iowa, and even to the sources of the Arkansas, coal is known to exist; but as yet it is not explored, so

as to define its limits or value, or to determine whether it is a part of the Illinois field, or of one or more separate basins.

In Michigan, also, there is a basin, including about one-half the lower peninsula; but the strata are thin, and the position retired from navigation. And in addition to the iron ore, necessarily attendant upon such numerous and extensive beds of coal, there are, extending from Lake Superior, with occasional intervals through Wisconsin, Missouri, Arkansas, and Texas, masses of iron, in the primitive and volcanic beds, that exist along a line from Michigan to Mexico.

By the census of 1840, there were, in the United States, 804 furnaces, producing annually 285,903 tons of pig metal and castings. There were also 795 forges or refineries, turning out 197,233 tons of malleable iron.

The *bituminous* coal raised, was 27,603,191 bushels; which, at 70 lbs. to the bushel, is 966,111 tons; of anthracite coal, 863,489 tons.

On account of the increased demand, and also in consequence of the introduction of the hot blast, by which the yield of a furnace is increased from one-third to one-half, without knowing the number of the furnaces and iron-mills erected since 1839, I think it safe to allow 25 per cent, or one-quarter, for the enlarged production of 1846 over 1839:—

| | | |
|---|---|---|
| That is, for pig metal in the United States,..... | tons | 358,024 |
| For malleable iron and iron rails,..... | " | 246,531 |

The increase in the quantity of bituminous coal, raised and consumed, is still greater—probably 50 per cent, or one-half.

In February, 1846, the descending coal trade of the Ohio was estimated at 12,000,000 of bushels, or 480,000 tons.

In 1840, there were received at Cleveland, by the Ohio Canal, 6,032 tons; in 1846, 31,283 tons.

This is not all the coal consumed upon the lakes; for the Erie extension, now in operation, delivers at Erie, in Pennsylvania, a large amount, probably 12,000 tons. At the time of the census of 1840, the mines on the Lower Ohio had scarcely been opened; and the steamboats on the Ohio River, like those on the lakes, had not become habituated to the use of coal.

With all these indications of increased consumption at the West, where the principal beds of bituminous coal exist—for the United States, I think it safe to put the augmented business in that time, at 50 per cent. The new use in stack furnaces, and the increased use in rolling-mills and forges, add much to the already monstrous application of this fuel. We will therefore state the present amount of bituminous coal raised, which is principally at the West, at 1,449,161 tons.

This does not probably show more than one-third of the consumption of the United States, including the anthracite and imported coals. At that rate, the total consumed in the United States would be 4,347,748 tons, or about the same as that of France, in 1841.

It may appear singular, but it is nevertheless true, that in the experiments upon the heating power of coal, made at Washington, in 1843–44, at the expense of the government, under Professor Johnston, only *three* specimens were taken from the West of the Alleghany Mountains, out of *fifty-eight* specimens operated upon. Of the three, one was from Pittsburgh; one from Connelston, Indiana; and one from the New Orleans coal-yards, its origin not known. We are therefore still without the benefit of most of the splendid results that flow from these experiments.

The practical value of the coal, everything else being equal, is its capacity to make steam; and the rule of the experimenter was, to determine the quantity necessary to convert *one cubic foot of water* into steam:—

| | Lbs. |
|---|---|
| The Pennsylvania and Maryland free burning coals required for that purpose, | 7.33 |
| The anthracite, | 7.71 |
| Richmond, | 8.20 |
| English and Western, | 8.97 |

In regard to Western coals, the number of specimens was too small to give much value to the conclusion, in regard to their heating power. It is satisfactorily settled, however, that the heating power is not in *direct proportion* to the carbon of the coal; for although the anthracite is nearly pure carbon, it stands below the free burning Maryland and Pennsylvania coals that contain bitumen.

According to Professor Silliman, the George's Creek coal, Maryland, of which four specimens were analyzed, contained 18½ per cent bitumen; and it is this and the kindred kinds which, according to Professor Johnston, stand at the head of the list. It is well known, that in Pennsylvania, there is a regular gradation from anthracite to bituminous coal, as we proceed from Mauch Chunk towards Pittsburgh. The Ohio coals contain, in general, a larger amount of bitumen than those of the Eastern edge of the field on the summit of the Alleghanies, that is to say, from 30 to 40 per cent.

Reducing the bitumen to its elements, the Ohio coals, as far as analyzed, give about 81 per cent carbon, while the English coals have about 73 per cent. Professor Johnston ranges the English and Western, according to their heating effect, about the same.

Let us now refer to the return of coal and iron for the whole United States, by the census, and compare the proportion of both down to the Ohio Valley, by which I mean the region drained by its waters.

| | No. of furnaces, and tons of cast iron. | | No. of forges, and tons of iron. | | Bush. of bituminous coal. |
|---|---|---|---|---|---|
| Western Dist. of Pennsylvania, | 134 | 53,101 | 67 | 63,431 | 11,620,654 |
| " Virginia, | 30 | 10,892 | 38 | 3,721 | 8,073,364 |
| Tennessee | 34 | 16,128 | 99 | 9,673 | 13,942 |
| Kentucky, | 17 | 29,206 | 13 | 3,637 | 1,158,167 |
| Ohio, | 72 | 35,236 | 19 | 7,466 | 3,597,769 |
| Indiana, | 7 | 810 | 1 | 20 | 242,000 |
| Illinois, | 4 | 158 | 0 | ..... | 461,807 |
| For the Ohio Valley, | 298 | 145,531 | 237 | 87,948 | 25,167,703 |
| For the United States, | 804 | 286,903 | 795 | 197,233 | 27,603,191 |

By these footings, about *one-half* the iron made in this nation is turned out upon the waters of the Ohio, and almost the whole of the bituminous coal.

I have no means of stating the quantity of anthracite coal now raised, or of giving the probable increase since 1839–40. In Ohio, since the above enumeration was taken, there have been at least *eight* furnaces erected, and in Kentucky, *four*; most of them hot blast furnaces. There has also been an increase in Western Pennsylvania. Throughout the West, generally, it may be asserted, that the number of works and the product of individual works, have increased in greater proportion than East of the mountains. If this is true, the *relative* product of the Ohio Valley and of

the nation, at this time, would be different from that shown in the preceding table, and the difference would be in favor of the West.

The duty on coal, under the act of 1842, was $1 75 per ton. From September 1st, 1845, to March 1st, 1846, (six months,) New Orleans received by the river 300,000 bushels, which it was supposed might be met by imported coal, under a duty of $1 per ton. The act of 1846, fixes upon coal a duty of 30 per cent ad valorem.

It is an article that varies greatly in price, at different places, and almost as much at the same place at different times.

| | | |
|---|---|---|
| At New Orleans, by retail, per bushel, from..... | 12 to 18 | cents. |
| Cincinnati,..... | 9 to 15 | " |
| Wheeling,..... | 3 to 5 | " |
| Pittsburgh,..... | 4 to 5½ | " |
| Cleveland,..... | 8 to 12 | " |
| Philadelphia, (February, 1846,) bituminous,..... | 20 to 22 | " |
| New York, Nova Scotia coal,..... | 18 to 21½ | " |
| New York, English coal,..... | 23 to 25 | " |

These prices are, of course, mere approximations.

By the experiments of Professor Johnston, the effect of anthracite, in generating steam, is not greatly superior to that of bituminous coal; and consequently, for household consumption, the bituminous, if furnished at about the same price, will work its way into favor. The cheerful brightness of its flame is, to many persons, more than a compensation for the difference in heat.

At Albany, there is already a small demand for coal from Lake Erie, at anthracite prices—say $6 to $7 per ton. It is more than probable, that after the Erie Canal is enlarged, this article, like the wheat, flour, and pork of the lakes, will become an important item in Western trade.

At Cleveland and Erie, it can be delivered in bulk on large contracts, at $2 25 and $2 50 per ton of 2,000 pounds.

Half a ton, or fourteen and a quarter bushels, of bituminous coal, is more than equal to a cord of four-foot wood; in fact, some regard ten bushels, and others twelve bushels, as equal to a cord.

There is therefore seldom, if ever, a time, even in the greatest scarcity of coal in market, when coal is not *cheaper* than wood as a fuel; ordinarily, it is about *one-half* less. This fact, taken in connection with its greater safety, less trouble, uniformity of temperature, and the increasing scarcity of timber, explains why mineral fuel conquers every other, everywhere, and works its way into all departments of life.

In the coal regions, for most purposes of power applied to machinery, it is crowding hard upon the old method of water-wheels, substituting the steam-engine in their place. For such uses, the bituminous coal seems to please best, on account of the readiness with which it may be set on fire, and thus a quick steam is obtained. It will undoubtedly always bear a higher price in the principal Eastern cities than anthracite.

The interior of the great Alleghany coal field, may be thought too remote from the principal communications to be of anything more than a local value. But in Virginia and Kentucky, the Cumberland, Kentucky, Licking, and Kenawha Rivers, extend far into the coal museums, and in high water the arks or flat boats are enabled to descend with a full load. The Monongahela and the Youghiogheny, likewise cut through coal strata for their entire length, and the same may be said of the Muskingum.

From the sources of the branches of the Upper Ohio, to the neighborhood of Portsmouth, all the streams flow over beds of coal, or have worn their way through them in the course of ages.

The "Erie extension" is cut in the coal strata, and also the Mahoning, and the Sandy and Brown Canals. The Ohio Canal, from Akron to Dresden, is in the same series; and thence to Portsmouth skirts its Western edges. The Hocking Canal is also in the coal region.

At present, the principal mines on the river are at Honesville, Pomeroy, Wheeling, Pittsburgh, and thence to Brownsville. It is from these points that the flat boats are filled; but at a hundred other places can coal be taken, in any quantity, with equal facility, as soon as it shall be needed.

## Art. IV.—UNITED STATES' COMMERCIAL REGULATIONS WITH MEXICO:

### WITH REFERENCE TO THE EFFECTS OF THE TARIFF OF DUTIES, ETC., IMPOSED ON MEXICAN PORTS IN THE MILITARY POSSESSION OF THE U. S.

WHOEVER contemplates the map of the world, and reflects upon the course of commerce in relation to the East, from the discoveries of the Portuguese, down to the present day, will naturally fix upon Mexico as that nation of all others best calculated from its frontier to take the lead in commerce. Her geographical position is good; and the eyes of all nations have, since the abandonment of a Northwest passage to India, been fastened on the isthmus as the great future road for commerce between the Atlantic and Pacific Oceans. Mexico labors, however, under many disadvantages. On the gulf coast, she has not a single good harbor; and the cities are not habitable for foreigners during many months in the year. The land ascends rapidly from the coast to the interior, making the transportation of goods difficult and expensive. But Mexico also enjoys many great advantages. Nature has blessed it with every possible description of mineral and agricultural wealth, in profuse abundance; and an industrious people, with an efficient government, would not fail to place it foremost among the nations of the earth. Unfortunately, however, the weak and imbecile natives passed under the dominion of proud, indolent, and rapacious Spaniards—a people essentially anti-industrial and anti-commercial. Down to 1789, Spain continued its barbarian prohibitive policy, allowing only one *galleon* of 1,400 tons to enter Mexico annually, with Chinese merchandise; and one, once in three years, from Seville or Cadiz, was chartered by government with European merchandise. In 1790, the trade was thrown open; and private capitalists engaging in it, it soon reached from $11,000,000 to $19,000,000. This trade was, however, still burdened with most onerous impositions under four general heads: first, on articles of Spanish produce in the markets of Seville or Cadiz; second, on shipment for Mexico; third, at Vera Cruz; fourth, transfer duties at every step from merchant to consumer. Under such arrangements, the trade did not prosper much; but on the breaking out of the civil war, the new government opened the leading ports to commerce. The Spanish merchants withdrew to Cuba and Cadiz, and their places were supplied by British and American, who, settling in the interior, supplied the natives with goods in exchange for dollars. The jealousy of the natives, who, themselves exceedingly indolent, are insanely enraged

at contemplating the prosperity of a diligent foreigner among them, caused an imbecile government to make absurd threats against foreign artificers and traders, and thereby prevented the growth of enterprise, and the settling of a more vigorous race among the Mexicans. These circumstances conspired to leave Mexico, at the era of the war of independence, in 1822, entirely without those great conservative commercial and industrial interests, without which, the military inevitably obtain the mastery and control of affairs. The long war of independence turned all the little energy that nation possessed into a military direction. From 1808 to 1821, the history of the revolution is only that of a sanguinary guerilla warfare, leading to no results other than destruction to trade and insecurity to property. In 1821, the sudden secession of Iturbide from the royal cause, in favor of liberalism, resulted in his ascending the throne as Emperor Augustin I. From that time, down to the present day, the political history of Mexico has been one rude scene of violence and military anarchy. A turbulent banditti, as faithless in their foreign dealings as they were rapacious, cruel, and treacherous, in their domestic affairs, have, for twenty-six years, held possession of that unhappy country. Room for enterprise, encouragement to industry, or security for property, there were none. The roads, particularly the splendid way constructed by the merchants of Vera Cruz from that city to the upper country, were suffered to go to decay; not even the injuries they sustained during the war have been repaired. Their antipathy to carriages, and means of transport and communication, is even more strong than that of the Spaniards. While the government, in its enactments and practice, has shown itself far more hostile to commerce than to crime, traffic has been more oppressed than vice, and merchants more rigidly fined than murderers. The repeated revolutions have left those who gain power, no other prospect than to get rich by peculation; and it has become a seemingly well understood system, that those going out of power should empty the treasury, and leave their successors to fill theirs by the most approved system of plunder. The desperation created by fortunes ruined at the *Monté* table, has been, perhaps, the most frequent cause of revolution in Mexico. The readiest mode of replenishing the treasury and feeding the cupidity of the officers, has been found in the prohibitive tariff system; because, while under pretence of encouraging home manufactures, by keeping foreign goods scarce and high, it made the sale of special privileges to import goods, to merchants, more profitable to the Dictator. The higher were the profits to be realized by the merchant, the better price could he pay for the privilege; hence, although a dishonest government had pledged the customs' revenues to discharge the interest on the debt, by this device of the privileges they could be still made available to the officer. A system of low duties would not have admitted such an operation.

All these causes have operated powerfully against the development of those great conservative industrial and commercial interests, without which there can be no stability of government, no efficient execution of the laws, nor any means of keeping in check those military adventurers, whose turbulence has torn that ill-fated country in internal brawls, and whose non-observance of treaties and plighted faith has involved two countries in the horrors of war.

As, however, there is no evil so unmixed that some good may not be extracted from it, the turn which affairs have taken may, it is not improba-

ble, result in the political regeneration of Mexico, and advance it to the rank of a useful member of the commercial world. And no country has the material for general wealth in greater abundance than Mexico. The mere assurance that property will be secure, and that merchandise in transit or in deposit will not be exposed to the rapacity of officials, will alone give a great impulse to Mexican resources. The facility with which the American forces have overrun the cities of Mexico, and the ease with which they may be held by small forces, are circumstances calculated to enable the United States to suppress, not only the military marauders, but the professed banditti, at least along the great lines of communication. On this occupation, as a basis, the plan of revenue adopted by the Treasury Department, and which may be found under another head,* seems eminently calculated, not only to divert from the Mexicans their principal means, and to throw those revenues into the hands of the United States in amounts sufficient to support the occupation, but to confer on Mexico the great and lasting benefit of planting commerce on her soil under circumstances that will insure its growth. We have said, that hitherto, Mexican commerce has been one of prohibition, on the law books, and of private bribery, in practice. The tariff, as it was, may be found in this Magazine, Vol. XIII., p. 566, and can be usefully compared with the new tariff, as imposed by the United States, in the present number. It will be observed that the *prohibited* articles will be admitted at comparatively easy rates. In order to show the probable extent of the trade, we annex a table of the exports of certain goods from Great Britain to Mexico, in the year 1846:—

EXPORTS OF CERTAIN ARTICLES FROM ENGLAND TO MEXICO.

| | | | |
|---|---|---|---|
| Cotton twist and yarn,.....lbs. | 66,178 | Cotton shawls, &c.,.....doz. | 42,375 |
| Cotton thread,..... | 39,922 | Cotton and linen cloth,....yards | 6,896 |
| Calicoes, plain,..... .....yards | 1,968,600 | Other Cotton goods,.....lbs. | 495 |
| Calicoes, printed,..... | 5,198,833 | Linens,.....yards | 2,379,179 |
| Cambrics, muslins, lawns,..... | 31,956 | Woollen yarn,.....lbs. | 3,024 |
| Other plain cottons,..... | 10,142 | Woollen and cotton,.....value | £10,310 |
| Lace, gauze, &c.,..... | 207,906 | Long cloths,..... | 1,343 |
| Cotton hose, &c.,.....doz. | 2,605 | Woollen and worsted,..... | 14,180 |
| Heavy woollens,.....lbs. | 107 | Flannels and blankets,..... | 1,928 |
| Woollen hose,..... | 353 | Other woollens,..... | 9,062 |
| Silks and mixed,..... | 3,417 | Total value woollen goods,.... | 36,403 |

This is pretty well for prohibited goods in time of war. The printed calicoes, in 1845, were over 7,000,000 yards. The trade may be increased to a considerable extent; and, while it improves Mexico and relieves the United States of a burden, it may conciliate foreign nations by throwing open to them a trade to which they have been strangers. There are a few disadvantages. Those creditors, to whom the Mexican customs are pledged, may grumble; those English, who have enjoyed the trade by buying it of Santa Anna, may complain; and lastly, the priests may, if they take part with Santa Anna, interdict the use of such articles as have paid the duties. These objections are, however, not important; and the opening of the trade, in connection with the admirable system of warehousing now being perfected, will have the effect of restoring to our shipping their ascendency in the carrying trade of this continent. From the

* For tariff and regulations instituted for Mexican ports in the possession of the United States, see our usual department for "Commercial Regulations," in a subsequent part of the present number of this Magazine.

time high cash duties were established, this trade began to decline; but now our warehouses are becoming filled with assortments of cheap goods, calculated to supply any description of assorted cargo. The tonnage duties are to be, in Mexican ports, $1 per ton registry measurement. The old duties were, on a vessel of 100 tons, as follows:—

| | |
|---|---|
| Pilotage in and out, per ton, $1,..... | $100 00 |
| Water draught, per foot, $2,..... | 15 00 |
| Pilot's fee,..... | 6 50 |
| Tonnage, $1 50,..... | 150 00 |
| Port captain's fee,..... | 10 00 |
| Hospital,..... | 10 00 |
| Total,..... | $291 00 |

Duties payable in hard dollars, eight reals to the dollar. The new regulations are great modifications from those duties. In 1842, a decree, changing the mode of measurement, increased the duties 75 per cent. The foot is that of Burgos, of which 109.38 were equal to 100 English.

The revenues of the Mexican government, under this system, were nearly as follows:—

| | | | |
|---|---|---|---|
| Customs' duties,..... | $6,500,000 | Tax on mines,..... | $1,000,000 |
| Interior commerce,..... | 4,500,000 | Tobacco monopoly,..... | 500,000 |
| Mint profits,..... | 500,000 | Tolls, &c.,..... | 500,000 |
| Post-office, salt, &c.,..... | 500,000 | | |
| Direct taxes,..... | 3,000,000 | Total,..... | $16,000,000 |

The United States may, on a liberal system, realize probably this sum from the resources in their hands.

If, through this operation, a great commercial interest can be built up in Mexico, that will enforce the laws and control the military, the greatest boon will be conferred, not only upon her, but upon the commercial world, and the products of the precious metals may easily be quadrupled.

## Art. V.—MERCANTILE BIOGRAPHY.

### THE LATE DAVID RICARDO, ESQ., M. P.

Mr. Ricardo was placed, in early life, under circumstances apparently the least favorable for the formation of those habits of patient and comprehensive investigation, which afterwards raised him to a high rank among political philosophers.

He was the third of a numerous family, and was born on the 19th of April, 1772. His father, a native of Holland, and of the Jewish persuasion, settled in England early in life. He is said to have been a man of good talents, and of the strictest integrity; and having become a member of the Stock Exchange, he acquired a respectable fortune, and possessed considerable influence in his circle. David, the subject of the present memoir, was destined for the same line of business as his father; and received, partly in England, and partly at a school in Holland, where he resided two years, such an education as is usually given to young men intended for the mercantile profession. Classical learning formed no part of his early instruction; and it has been questioned, with how much justice we shall not undertake to decide, whether its acquisition would have done him service; and whether it might not probably have made him seek

for relaxation in the study of elegant literature, rather than in the severer exercises of the understanding; and prompted him to adopt opinions sanctioned by authority, without inquiring very anxiously into the grounds on which they rested.

Mr. Ricardo began to be confidentially employed by his father in the business of the Stock Exchange, when he was only fourteen years of age. Neither then, however, nor at any subsequent period, was he wholly engrossed by the details of his profession. From his earliest years, he evinced a taste for abstract reasoning; and manifested that determination to probe every subject of interest to the bottom, and to form his opinion upon it according to the conviction of his mind, which was a distinguishing feature of his character.

Mr. Ricardo, senior, had been accustomed to subscribe, without investigation, to the opinions of his ancestors, on all questions connected with religion and politics; and he was desirous that his children should do the same. But this system of passive obedience, and of blind submission to the dictates of authority, was quite repugnant to the principles of young Ricardo, who, at the same time that he never failed to testify the sincerest affection and respect for his father, found reason to differ from him on many important points, and even to secede from the Hebrew faith.

Not long after this event, and shortly after he had attained the age of majority, Mr. Ricardo formed a union, productive of unalloyed domestic happiness, with Miss Wilkinson. Having been separated from his father, he was now thrown on his own resources, and commenced business for himself. At this important epoch of his history, the oldest and most respectable members of the Stock Exchange gave a striking proof of the esteem entertained by them for his talents and character, by voluntarily coming forward to support him in his undertakings. His success exceeded the most sanguine expectations of his friends, and in a few years he realized an ample fortune.

"The talent for obtaining wealth," says one of Mr. Ricardo's near relations, from whose account of his life we have borrowed these particulars, "is not held in much estimation; but, perhaps, in nothing did Mr. R. more evince his extraordinary powers, than he did in his business. His complete knowledge of all its intricacies; his surprising quickness at figures and calculation; his capability of getting through, without any apparent exertion, the immense transactions in which he was concerned; his coolness and judgment, combined certainly with (for him) a fortunate tissue of public events, enabled him to leave all his contemporaries at the Stock Exchange far behind, and to raise himself infinitely higher, not only in fortune, but in general character and estimation, than any man had ever done before in that house. Such was the impression which these qualities had made on his competitors, that several of the most discerning among them, long before he had emerged into public notoriety, prognosticated, in their admiration, that he would live to fill some of the highest stations in the state."*

According as his solicitude about his success in life declined, Mr. Ricardo devoted a greater portion of his time to scientific and literary pursuits. When about twenty-five years of age, he began the study of some branches of mathematical science, and made considerable progress in

* See an Account of the Life of Mr. Ricardo, in the *Annual Obituary* for 1823, supposed to be written by one of his brothers.

chemistry and mineralogy. He fitted up a laboratory, formed a collection of minerals, and was one of the original members of the Geological Society. But he never entered warmly into the study of these sciences. They were not adapted to the peculiar cast of his mind; and he abandoned them entirely, as soon as his attention was directed to the more congenial study of political economy.

Mr. Ricardo is stated to have first become acquainted with the *Wealth of Nations*, in 1799, while on a visit at Bath, to which he had accompanied Mrs. Ricardo for the benefit of her health. He was highly gratified by its perusal; and it is most probable that the inquiries about which it is conversant, continued henceforth to engage a considerable share of his attention, though it was not till a later period that his spare time was almost exclusively occupied with their study.

Mr. Ricardo came, for the first time, before the public as an author, in 1809. The rise in the market price of bullion, and the fall of the exchange that had taken place in the course of that year, had excited a good deal of attention. Mr. Ricardo applied himself to the consideration of the subject; and the studies in which he had latterly been engaged, combined with the experience he had derived from his moneyed transactions, enabled him not only to perceive the true causes of the phenomena in question, but to trace and exhibit their practical bearing and real effect. He began this investigation without intending to lay the result of his researches before the public. But having shown his manuscript to the late Mr. Perry, the proprietor and editor of the *Morning Chronicle*, the latter prevailed upon him, though not without considerable difficulty, to consent to its publication, in the shape of letters, in that journal. The first of these letters appeared on the 6th of September, 1809. They made a considerable impression, and elicited various answers. This success, and the increasing interest of the subject, induced Mr. Ricardo to commit his opinions upon it to the judgment of the public, in a more enlarged and systematic form, in the tract entitled "*The High Price of Bullion a Proof of the Depreciation of Bank Notes.*" This tract led the way in the far-famed bullion controversy. It issued from the press several months previously to the appointment of the bullion committee, and is believed to have had no inconsiderable effect in forwarding that important measure. In this tract, Mr. Ricardo showed, that redundancy and deficiency of currency are only *relative* terms; and that, so long as the currency of any particular country consists exclusively of gold and silver coins, or of paper immediately convertible into such coins, its value can neither rise above, nor fall below, the value of the metallic currencies of other countries, by a greater sum than will suffice to defray the expense of importing foreign coin or bullion, if the currency be deficient; or of exporting a portion of the existing supply, if it be redundant. But when a country issues inconvertible paper notes, (as was then the case in England,) they cannot be exported to other countries in the event of their becoming redundant at home; and whenever, under such circumstances, the exchange with foreign States is depressed below, or the price of bullion rises above, its mint price, more than the cost of sending coin or bullion abroad, it shows, conclusively, that too much paper has been issued, and that its value is *depreciated from excess.* The principles which pervade the report of the bullion committee, are substantially the same with those established by Mr. Ricardo, in this pamphlet; but the more comprehensive and popular

manner in which they are illustrated in the report, and the circumstance of their being recommended by a committee composed of some of the ablest men in the country, gave them a weight and authority which they could not otherwise have obtained. And though the prejudices and ignorance of some, and the interested, and therefore determined, opposition of others, prevented for a while the adoption of the measures proposed by Mr. Ricardo and the committee for restoring the currency to a sound and healthy state, they were afterwards carried into full effect; and afford one of the most memorable examples in our history, of the triumph of principle over selfishness, sophistry, and error.

The *fourth* edition of this tract is the most valuable. An appendix added to it has some acute observations on some difficult questions in the theory of exchange; and it also contains the first germ of the original idea of making bank notes exchangeable for bars of gold bullion.

Among those who entered the lists, in opposition to the principles laid down, and the practical measures suggested, in Mr. Ricardo's tract, and in the report of the bullion committee, a prominent place is due to Mr. Bosanquet. This gentleman had great experience as a merchant; and as he professed that the statements and conclusions embodied in his "*Practical Observations*," which are completely at variance with those in the report, were the result of a careful examination of the theoretical opinions of the committee by the test of fact and experiment, they were well fitted to make, and did make, a very considerable impression. The triumph of Mr. Bosanquet was, however, of very short duration. Mr. Ricardo did not hesitate to attack this formidable adversary in his stronghold. His tract, entitled, "*Reply to Mr. Bosanquet's Practical Observations on the Report of the Bullion Committee*," was published in 1811, and is one of the best essays that has appeared on any disputed question of political economy. In this pamphlet, Mr. Ricardo met Mr. Bosanquet on his own ground, and overthrew him with his own weapons. He examined all the proofs which Mr. Bosanquet had brought forward, of the pretended discrepancy between the facts stated in his own tract, which he said were consistent with experience, and the theory laid down in the bullion report; and showed that Mr. B. had either mistaken the cases by which he proposed to test the theory, or that the discrepancy was only apparent, and was entirely a consequence of his inability to apply the theory, and not of anything erroneous or deficient in it. The victory of Mr. Ricardo was perfect and complete; and the elaborate errors and mis-statements of Mr. Bosanquet, served only, to use the words of Dr. Coppleston, "to illustrate the abilities of the writer who stepped forward to vindicate the truth."

This tract affords a striking example of the ascendency which those who possess a knowledge both of principle and practice, have over those who are familiar only with the latter; and though the interest of the question which led to its publication has now subsided, it will always be read with delight by such as are not insensible of the high gratification which all ingenuous minds must feel in observing the ease with which a superior intellect clears away the irrelevant matter with which a question has been designedly embarrassed, reduces false facts to their just value, and traces and exhibits the constant operation of the same general principle through all the mazy intricacies of practical detail.

The merit of these pamphlets was duly appreciated; and Mr. Ricardo's society was, in consequence, courted by men of the first eminence, who

were not less pleased with his modesty and unassuming manners, than with the vigor of his understanding. He formed, about this time, that intimacy with Mr. Malthus, and Mr. Mill, the historian of British India, which ended only with his death. To the latter, he was particularly attached, and readily acknowledged how much he owed to his friendship.

Mr. Ricardo next appeared as an author, in 1815, during the discussions on the bill, afterwards passed into a law, for raising the limit at which foreign corn might be imported for consumption, to 80s. Mr. Malthus, and a "Fellow of University College, Oxford," (afterwards Sir Edward West,) had, by a curious coincidence, in tracts published almost consentaneously, elucidated the true theory of rent, which, though discovered by Dr. Anderson as early as 1777, appears to have been entirely forgotten. But neither of these gentlemen perceived the bearing of the theory on the question in regard to the restriction of the importation of foreign corn. This was reserved for Mr. Ricardo, who, in his "*Essay on the Influence of a Low Price of Corn on the Profits of Stock*," showed the effect of an increase in the price of raw produce on wages and profits; and founded a strong argument in favor of the freedom of the corn trade, on the very grounds on which Mr. Malthus had endeavored to show the propriety of subjecting it to fresh restrictions.

In 1816, Mr. Ricardo published his "*Proposals for an Economical and Secure Currency, with Observations on the Profits of the Bank of England.*" In this pamphlet, he examined the circumstances which determine the value of money, when every individual has the power to supply it, and when that power is restricted or placed under a monopoly; and he showed that, in the former case, its value will depend, like that of all other freely supplied articles, on its cost; while, in the latter, it will be unaffected by that circumstance, and will depend on the extent to which it may be issued compared with the demand. This is a principle of great importance; for it shows that intrinsic worth is not necessary to a currency, and that, provided the supply of paper notes, declared to be legal tender, be sufficiently limited, their value may be maintained on a par with the value of gold, or raised to any higher level. If, therefore, it were practicable to devise a plan for preserving the value of paper on a level with that of gold, without making it convertible into coin at the pleasure of the holder, the heavy expense of a metallic currency would be saved. To effect this desirable object, Mr. Ricardo proposed that, instead of being made exchangeable for gold coins, bank notes should be made exchangeable for *bars of gold bullion of the standard weight and purity.* This plan, than which nothing can be more simple, was obviously fitted to check the over-issue of paper quite as effectually as it is checked by making it convertible into coin; while, as bars could not be used as currency, it prevented any gold from getting into circulation, and consequently saved the expenses of coinage, and the wear and tear and loss of coins. Mr. Ricardo's proposal was recommended by the committees of the Houses of Lords and Commons, appointed in 1819, to consider the expediency of the Bank of England resuming cash payments; and was afterwards adopted in the bill for their resumption introduced by Mr. (now Sir Robert) Peel. In practice, it was found completely to answer the object of checking over-issue. But inasmuch as it required that the place of sovereigns should be filled with one pound notes, the forgery of the latter began to be extensively carried on; and it was wisely judged better to incur the expense of

recurring to and keeping up a mixed currency, than to continue a plan which, though productive of a large saving, held out an all but irresistible temptation to crime.

At length, in 1817, Mr. Ricardo published his great work on the "PRINCIPLES OF POLITICAL ECONOMY AND TAXATION." This was a step which he did not take without much hesitation. He was not, and did not affect to be, insensible of the value of literary and philosophical reputation; but his modesty always led him to undervalue his own powers; and having acquired a very high degree of celebrity as a writer on currency, he was unwilling to risk what he already possessed by attempting to gain more. Ultimately, however, he was prevailed upon, by the entreaties of his friends, to allow his work to be sent to press. Its appearance forms a memorable era in the history of political science. Exclusive of many valuable subsidiary inquiries, Mr. Ricardo has pointed out, in this work, the source and limiting principle of exchangeable value, and has traced the laws which determine the distribution of wealth among the various ranks and orders of society. The powers of mind displayed in these investigations, the dexterity with which the most abstruse questions are unravelled, the sagacity displayed in tracing the operation of general principles, in disentangling them from such as are of a secondary and accidental nature, and in perceiving and estimating their remote consequences, have never been surpassed; and will forever secure the name of Ricardo a conspicuous place among those who have done most to unfold the mechanism of society, and to discover the circumstances on which the well-being of its various orders must always mainly depend.

Mr. Ricardo maintains, in this work, the fundamental principle, that the exchangeable value of commodities or their relative worth, as compared with each other, depends exclusively on *the quantity of labor* necessarily required to produce them, and bring them to market. Smith had shown that this principle determined the value of commodities in the earlier stages of society, before land had been appropriated and capital accumulated; but he supposed that, after land had become property and rent began to be paid, and after capital had been amassed and workmen began to be hired by capitalists, the value of commodities fluctuated, not only according to variations in the labor required to produce and bring them to market, but also according to variations of rents and wages. But Mr. Ricardo has shown that this theory is erroneous, and that the value of commodities is determined in all states of society by the same principle, or by the quantity of labor required for their production. He showed that variations of profits or wages, by affecting different commodities to the same, or nearly the same extent, would either have no influence over their exchangeable value, or if they had any, it would depend upon the degree in which they occasionally affect some products more than others. And Dr. Anderson and others, having already shown that rent is not an element of cost or value, it follows that the cost or value of all freely produced commodities, the supply of which may be indefinitely increased, (abstracting from temporary variations of supply and demand,) depends wholly on the quantity of labor required for their production, and not upon the rate at which that labor may be paid; so that, supposing the labor required to produce any number of commodities to remain constant, their cost and value will also remain constant, whether wages fall from 3s. to 1s., or rise from 3s. to 5s., or 7s. a day. This is the fundamental theorem of the science of value,

and the clue which unravels the intricate labyrinth of the laws which regulate the distribution of wealth. Its discovery has shed a flood of light on what was previously shrouded in all but impenetrable mystery; and the apparently knotty, and hitherto insoluble questions, regarding the action of wages and profits on each other and on prices, have since ceased to present any insuperable difficulties. What the researches of Locke and Smith did, for the production of wealth, those of Ricardo have done for its value and distribution.

The establishment of general principles being Mr. Ricardo's great object, he has paid comparatively little attention to their practical application; and sometimes, indeed, he has, in great measure, overlooked the circumstances by which they are occasionally countervailed. In illustration of this, we may mention, that society being laid under the necessity of constantly resorting to inferior soils to obtain additional supplies of food, Mr. Ricardo lays it down that, in the progress of society, raw produce and wages have a constant tendency to rise, and profits to fall. And this, no doubt, is in the abstract true. But it must at the same time be observed, that while on the one hand society is obliged constantly to resort to inferior soils, agriculture is on the other hand susceptible of indefinite improvement; and this improvement necessarily in so far countervails the decreasing fertility of the soil; and may, and, in fact, very frequently does, more than countervail it. Mr. Ricardo has also very generally overlooked the influence of increased prices, in diminishing consumption and stimulating industry; so that his conclusions, though true according to his assumptions, do not always harmonize with what really takes place. But his is not a practical work; and it did not enter into his plan to exhibit the circumstances that give rise to the discrepancies in question. The "*Principles of Political Economy and Taxation*," is not even a systematic treatise, but is principally an inquiry respecting certain fundamental principles, most of which had previously been undiscovered. And though it be often exceedingly difficult, or, it may be, all but impossible, to estimate the extent to which these principles may in certain cases be modified by other principles and combinations of circumstances, it is obviously of the greatest importance to have ascertained their existence. They are so many landmarks to which to refer, and can never be lost sight of even in matters most essentially practical.

That part of Mr. Ricardo's work, in which he applies his principles to discover the incidence of taxes on rent, profit, wages, and raw produce, is more practical than the others; and must always be a subject of careful study to those who wish to make themselves well acquainted with this department of political science.

Mr. Ricardo had now become an extensive landed proprietor, and had wholly retired from business, with a fortune acquired with the universal respect and esteem of his competitors. But he did not retire from the bustle of active life, to the mere enjoyment of his acres—*Non fuit consilium socordia atque desidia bonum otium conterere*—he had other objects in view; and while his leisure hours, when in the country, were chiefly devoted to inquiries connected with that science, of which he was now confessedly at the head, he determined to extend the sphere of his usefulness by entering the House of Commons. In 1819, he took his seat as member for Portarlington. His diffidence in his own powers had, however, nearly deprived the public of the services which he rendered in this

situation. In a letter to one of his friends, dated the 7th of April, 1819, he says: "You will have seen that I have taken my seat in the House of Commons. I fear that I shall be of little use there. I have twice attempted to speak; but I proceeded in the most embarrassed manner; and I have no hope of conquering the alarm with which I am assailed the moment I hear the sound of my own voice." And in a letter to the same gentleman, dated the 22d of June, 1819, he says: "I thank you for your endeavors to inspire me with confidence on the occasion of my addressing the House. Their indulgent reception of me has, in some degree, made the task of speaking more easy to me; but there are yet so many formidable obstacles to my success, and some, I fear, of a nature nearly insurmountable, that I apprehend it will be wisdom and sound discretion in me to content myself with giving silent votes." Fortunately he did not adopt this resolution. The difficulties with which he had at first to struggle, and his diffidence in himself, gradually subsided; while the mildness of his manners, the mastery which he possessed over the subjects on which he spoke, and the purity of his intentions, speedily secured him a very extensive influence, both in the House and the country, and gave great weight to his opinions.

Mr. Ricardo was not one of those who make speeches to suit the ephemeral circumstances and politics of the day: he spoke only from principle, and with a fixed resolution never to diverge in any degree from the path which it pointed out; he neither concealed nor modified an opinion for the purpose of conciliating the favor, or of disarming the prejudices or hostility, of any man or set of men; nor did he ever make a speech, or give a vote, which he was not well convinced was founded on just principles, and calculated to promote the lasting interests of the public. Trained to habits of profound thinking, independent in his fortune, and inflexible in his principles, Mr. Ricardo had little in common with mere party politicians. The public good was the grand object of his parliamentary exertions; and he labored to promote it, not by engaging in party combinations, but by supporting the rights and liberties of all classes, and by unfolding the true sources of national wealth and general prosperity.

The change that has taken place in the public opinion, respecting the financial and commercial policy of the country, since the period when Mr. Ricardo obtained a seat in the House of Commons, is as complete as it is gratifying. Not only are the most enlarged principles advocated by all the leading members of both Houses; not only are they now ready to admit that the exclusive system is founded on vicious principles, and that it is sound policy to admit the freest competition in every branch of industry, and to deal with all the world on fair and liberal principles; but they are about to make these doctrines a part of the law of the land, and to give them the sanction of parliamentary authority. Sir Robert Peel has the signal merit of having, despite the most formidable obstacles, carried out and established, in their fullest extent, the great principles of commercial freedom developed by Smith and his followers. And we believe, that that distinguished statesman would readily admit that the writings and speeches of Mr. Ricardo have powerfully contributed to pave the way for this most desirable consummation. As he was known to be a master in "the master-science of civil life," his opinion, from the moment he entered the

House of Commons, was referred to on all important occasions;* and he acquired additional influence and consideration, according as experience served to render the House and the country better acquainted with his talents and his singleness of purpose.

In 1820, Mr. Ricardo contributed an article on the "*Funding System*," to the Supplement to the "Encyclopædia Britannica." This tract, though somewhat confused in its arrangement, embraces many valuable discussions. He was a decided friend to the plan for raising the supplies for a war within the year, by an equivalent increase of taxation; and he also thought (in which opinion few probably will be disposed to concur) that it would not be only expedient, but practicable, to pay off the public debt by an assessment on capital.

In 1822, Mr. Ricardo published, during the parliamentary discussions on the subject of the corn laws, his tract on "*Protection to Agriculture.*" This is the best of all his pamphlets, and is, indeed, a *chef-d'œuvre*. The important questions respecting remunerating price, the influence of a low and high value of corn over wages and profits, the influence of taxation over agriculture and manufactures, and many other topics of equal difficulty and interest, are all discussed in the short compass of eighty or ninety pages, with a precision and clearness that leaves nothing to be desired. Had Mr. Ricardo never written anything else, this pamphlet would have placed him in the first rank of political economists.

Though not robust, Mr. Ricardo's constitution was apparently good, and his health such as to promise a long life of usefulness. He had, indeed, been subject, for several years, to an affection in one of his ears; but as it had not given him any serious inconvenience, he paid it but little attention. When he retired to his seat in Gloucestershire, (Gatcomb Park,) subsequently to the close of the session of 1823, he was in excellent health and spirits; and, besides completing a tract, containing a plan for the establishment of a *National Bank*, he engaged, with his usual ardor, in elaborate inquiries regarding some of the more abstruse economical doctrines. But he was not destined to bring these inquiries to a close! Early in September, he was suddenly seized with a violent pain in the diseased ear: the symptoms were not, however, considered unfavorable; and the breaking of an imposthume that had been formed within the ear contributed greatly to his relief. But the amendment was only transitory; within two days, inflammation recommenced; and after a period of the greatest agony, pressure on the brain ensued, which produced a stupor that continued until death terminated his sufferings, on the 11th September, in his fifty-second year.

In private life, Mr. Ricardo was most amiable. He was an indulgent father and husband, and an affectionate and zealous friend. No man was ever more thoroughly free from every species of artifice and pretension; more sincere, plain, and unassuming. He was particularly fond of assembling intelligent men around him, and of conversing in the most unrestrained manner on all topics of interest, but more especially on those connected with his favorite science. On these, as on all occasions, he

* Mr. Ricardo made the first of his prominent appearances on the 24th of May, 1819, in the debate on the resolutions proposed by Mr. (now Sir Robert) Peel, respecting the resumption of cash payments. He did not rise until he was loudly called upon from all sides of the House.

readily gave way to others, and never discovered the least impatience to speak; but when he did speak, the solidity of his judgment, his candor, and his extraordinary talent for resolving a question into its elements, and for setting the most difficult and complicated subjects in the most striking point of view, arrested the attention of every one, and delighted all who heard him. He never entered into an argument, whether in public or private, for the sake of displaying ingenuity, of baffling an opponent, or of gaining a victory. The discovery of truth was his exclusive object. He was ever open to conviction; and if he were satisfied he had either advanced or supported an erroneous opinion, he was the first to acknowledge his error, and to caution others against it.

Few men have possessed, in a higher degree than Mr. Ricardo, the talent of speaking and conversing with clearness and facility on the abstrusest topics. In this respect, his speeches were greatly superior to his publications. The latter cannot be readily understood and followed, without considerable attention; but nothing could exceed the ease and felicity with which he illustrated and explained the most difficult questions of political economy, both in private conversation and in his speeches. Without being forcible, his style of speaking was easy, fluent, and agreeable. It was impossible to take him off his guard. To those who were not familiar with his speculations, some of his positions were apt to appear paradoxical; but the paradox was only in appearance. He rarely advanced an opinion on which he had not deeply reflected, and without examining it in every point of view; and the readiness with which he overthrew the most specious objections that the ablest men in the House could make to his doctrines, is the best proof of their correctness, and of the superiority of his understanding. That there were greater orators, and men of more varied and general acquirements, in Parliament, than Mr. Ricardo, we readily allow; but we are bold to say, that in point of deep, clear, and comprehensive intellect, he had no superiors, and very few, if any equals, either in Parliament or in the country.

He was not less generous than intelligent; he was never slow to come forward to the relief of the poor and the distressed; and while he contributed to almost every charitable institution in the metropolis, he supported, at his own expense, an alms-house for the poor, and two schools for the instruction of the young, in the vicinity of his seat in the country.

Besides the publications previously enumerated, Mr. Ricardo left one or two manuscripts. Among others, a "*Plan for the Establishment of a National Bank*," was found in a finished state, and was soon after published.

He also left "*Notes*" on Mr. Malthus's Principles of Political Economy; containing a vindication of his own doctrines from the objections of Mr. Malthus, and showing the mistakes into which he conceives Mr. M. had fallen.

Though not properly belonging to the Whig party, Mr. Ricardo voted almost uniformly with the Opposition. He was impressed with the conviction, that many advantages would result from giving the people a greater influence over the choice of their representatives in the House of Commons than they then possessed; and he was so far a friend to the system of the radical reformers, as to give his cordial support to the plan of voting by ballot; which he considered as the best means for securing the mass of the electors against improper solicitations, and for enabling them to

vote in favor of the candidates whom they really approved. He did not, however, agree with the radical reformers in their plan of universal suffrage; he thought the elective franchise should be given to all who possessed a certain amount of property; but he was of opinion, that while it would be a very hazardous experiment, no practical good would result from giving the franchise indiscriminately to all. His opinions on these subjects are fully stated in the *Essay on Parliamentary Reform*, and in the *Speech on the Ballot*, which will be found in the edition of his works, published in 1846, by Murray, of London.

Of the value of the services rendered by Mr. Ricardo to political economy, there can be, among intelligent men, only one opinion. His works have made a very great addition to the mass of useful and universally interesting truths, and afford some of the finest examples to be met with, of discriminating analysis, and of profound and refined discussion. The brevity with which he has stated some of his most important propositions; their intimate dependence on each other; the fewness of his illustrations; and the mathematical cast he has given to his reasoning, render it sometimes a little difficult for readers, unaccustomed to such investigations, readily to follow him. But we can venture to affirm, that those who will give to his works the attention of which they are so worthy, will find them to be as logical and conclusive as they are profound and important. It was the opinion of Quintilian, that the students of eloquence who were highly delighted with Cicero, had made no inconsiderable progress in their art; and the same may, without hesitation, be said of the students of political economy who find pleasure in the works of Mr. Ricardo: *Ille se profecisse sciat, cui Ricardo valde placebit.*

When the circumstances under which Mr. Ricardo spent the greater part of his life, are brought under view; and when it is also recollected, that he died at the early age of *fifty-one*, it may be truly said that very few have ever achieved so much. His industry was as remarkable as his sagacity and his candor.

"The history of Mr. Ricardo," to use the words of Mr. Mill, "holds out a bright and inspiring example. Mr. Ricardo had everything to do for himself; and he did everything. Let not the generous youth, whose aspirations are higher than his circumstances, despair of attaining either the highest intellectual excellence, or the highest influence on the welfare of his species, when he recollects in what circumstances Mr. Ricardo opened, and in what he closed, his memorable life. He had his fortune to make; his mind to form; he had even his education to commence and conduct. In a field of the most intense competition, he realized a large fortune, with the universal esteem and affection of those who could best judge of the honor and purity of his acts. Amid this scene of active exertion and practical detail, he cultivated and he acquired habits of intense, and patient, and comprehensive thinking; such as have been rarely equalled, and never excelled."

Mr. Ricardo left a widow, three sons, and four daughters.

## Art. VI.—LAW OF DEBTOR AND CREDITOR IN OHIO.

THERE are three grades of courts for the administration of justice in the State of Ohio—Justices' Courts, Courts of Common Pleas, and Supreme Court, besides certain local jurisdictions.

Courts of Justices of the Peace are always open for the application of remedies within their jurisdiction. They are elected by the voters of each township, for the term of three years; receive their commission from the Governor; have a limited criminal jurisdiction, and jurisdiction in matters of contract, when the amount in dispute does not exceed one hundred dollars; and may render judgment, on confession of the debtor, in the sum of two hundred dollars. Judgment may be recovered on the third day after the service of process, unless proceedings are delayed by real or sham defences. From these judgments, there is a right of appeal to the Court of Common Pleas of the county; or the debtor may stay the execution thereon from two to eight months, according to the amount, by giving security to the satisfaction of the justice.

The State is divided into sixteen judicial circuits or districts, in each of which there is a president judge, and in each county three associate judges, who, with the president judge, constitute the Court of Common Pleas. This court holds three terms a year; has appellate jurisdiction from all civil cases of which the justice takes cognizance, and original jurisdiction over all controversies when the amount involved exceeds one hundred dollars. The original jurisdiction of this court is of a very multifarious character. It takes cognizance of the whole range almost of civil rights; is charged with the settlement of the estates of decedents, and the appointment of guardians; it licenses tavern-keepers, and ministers to marry; appoints auctioneers and school-examiners; lays out and locates roads, &c., &c. It has original jurisdiction in chancery, and original and exclusive jurisdiction over crimes and offences, with few exceptions.

The Supreme Court is the court of dernier resort, and is composed of four judges. They have power to divide the State into two circuits, within which, two of them are required to hold a court once a year. This court sits annually in bank, at Columbus, for the final adjudication of such questions as have been reserved by it on the circuit. Its decisions have been reported since 1821, and the forthcoming volume will be the fifteenth of its reports. It has concurrent jurisdiction with the Court of Common Pleas, over all cases in law and equity where the matter in dispute exceeds one thousand dollars; and appellate jurisdiction from the Court of Common Pleas, over all cases in chancery in which the latter court has original jurisdiction. Law cases may be removed from the Common Pleas to the Supreme Court, by writ of error or certiorari, for decision; the right of appeal having been taken away by a recent amendment of the law.

### IMPRISONMENT FOR DEBT.

Imprisonment for debt was abolished in Ohio, in 1838. The debtor may, however, be arrested and held to bail, if the creditor, his agent, or attorney, will make oath to the nature and amount of the indebtedness; and,

That the debtor is about to remove his property out of the jurisdiction of the court, with intent to defraud his creditors; or,

That he has converted, or is about to convert his property into money, for the purpose of placing it beyond the reach of his creditors; or,

That he has property or rights in action, which he fraudulently conceals; or,

That he has assigned, removed, or disposed of, or is about to dispose of his property, with intent to defraud his creditors; or,

That he fraudulently contracted the debt, or incurred the obligation, for which suit is about to be brought; or,

That he is about to remove his body out of the jurisdiction of the State or ——, with intent thereby to defraud his creditors; or,

That he is not a resident of the State.

From this arrest, the debtor may release himself by giving bail for his appearance at court, when the process is returnable. Suits thus entered, proceed in the same manner to judgment, as when commenced by summons, which is the ordinary process. The defendant is deemed to be in court on the return of process served. The practice, in its details, varies on the different circuits; but on money demands, judgment may be recovered at the first term of the court after the appearance term, unless delayed by a full docket, or the interposition of dilatory defences.

### ATTACHMENT.

There is no seizure or attachment of property upon judgment, except in cases of absconding and non-resident debtors. If the creditor, his agent, or attorney, will make oath of the existence of an indebtedness in an amount giving jurisdiction to the court, and that his debtor is not a resident of the State, or has absconded, an attachment will issue for the seizure of his real and personal estate; and, by what is called the garnishee process, confiscating the credits of the debtor in the hands of his debtors.

Three terms of the court must intervene before judgment can be rendered, and before the property can be sold, except what is of a perishable nature. Other creditors may join in the prosecution of the suit, and entitle themselves to a *pro rata* distribution of the proceeds of the property and credits attached; and if the creditor, at whose instance the writ of attachment issued, abandons the prosecution, or neglects to carry it on, any other creditor may take it up and prosecute to judgment. There is no other proceeding at law, by which the debtor's property can be seized before the creditor has obtained a judgment. It is a proceeding *in rem*, strictly, and does not lie against joint debtors or copartners, unless all the joint debtors or copartners are non-residents, or have absconded. It is the property seized, or the credits attached, which gives to the court jurisdiction. The property may be claimed by a third person; and if on trial it should be adjudged to be in the claimant, the suit will fail for want of jurisdiction, unless persons have been summoned as garnishees, who are indebted to the defendant in the attachment, or have credits in their hands belonging to him.

### JUDGMENT LIENS.

Judgments in the Supreme Court and Courts of Common Pleas, are liens upon the real estate of the debtor lying in the county where the judgments are rendered. Voluntary conveyances or encumbrances of his real estate, made by the debtor on or after the first day of the term of the court at which judgments are recovered, create no lien or encumbrance as against those judgments. Judgments recovered in favor of different creditors, against the same debtor, at the same term of court, have no preference or priority, unless acquired subsequently by the greater vigilance of

one creditor. This would happen in case all the creditors should lie by for one year, without causing executions to be levied upon the real estate of the debtor; after the expiration of a year, the execution first levied would be first satisfied as between those judgments.

In the meantime, other creditors may have acquired advantages in the case of vigilance. This is the doctrine: judgments bind the lands of the debtor one year without the levy of execution, as against judgments subsequently recovered, and five years as against the voluntary conveyances of the judgment debtor. Judgments recovered at the same term, will divide the proceeds of the debtor's real estate *pro rata*, if the lien is not lost by delay. Judgments recovered at different terms, will be satisfied according to the priority of the date, the oldest judgment being first paid, unless this order should be deranged by the voluntary acts of the creditor.

The personalty of the debtor is not bound until execution is levied upon it.

Judgments become dormant in five years after they are recovered, if no execution issues, and in five years after the return of the last execution, but may be revived by *scire facias*.

The judgment debtor may be taken in execution, for causes analogous to those for which he might have been arrested on *mesne* process—the *capias ad satisfaciendum* issuing in term time, on the allowance of the court, and in vacation, on the allowance of a single judge, upon the oath of the creditor, his agent, or attorney, and such other testimony as he may present, establishing to the satisfaction of the court or judge, the existence of one of the causes specified in the statute for the arrest of the debtor in execution.

The debtor thus arrested, may take the jail limits which are co-extensive with the county, by giving the required security; or he may release himself entirely, by complying with the provisions of the insolvent debtor act. The certificate of discharge from the proper court, exempts his body from imprisonment for existing debt, but does not release or exempt from execution the subsequent acquisitions of the insolvent.

### LIMITATION OF ACTIONS.

The time limited by law for the prosecution of suits on contracts in writing, whether sealed or unsealed, on bills of exchange, and promissory notes, is fifteen years; on book accounts and parol agreements, six years from the time the party had a right to sue, as limited in the contract, or after the last payment or acknowledgment of the debt or allegation.

There are certain disabilities, such as infancy, insanity, and imprisonment, which, if existing at the time the right of action accrued, will suspend the operation of the rule.

Contracts made in another State, between persons not resident in this State, will be governed by the law of the State where they were made. If barred by the limitation acts of that State, they will be barred in this.

### NEGOTIABLE INSTRUMENTS.

BONDS.—Bills of exchange and promissory notes, made payable in *money* to any person, or order, or bearer, or assigns, are negotiable by endorsement, and each successive endorsee is invested with the legal title to the same. The maker of a bond or note, the drawer and acceptor of a bill of exchange, and all the prior endorsers, may be prosecuted by the holder to a joint judgment.

These instruments are entitled to three days of grace. Twelve per cent damages are given on protested bills, when drawn on any person or corporate body without the United States, and six per cent, when drawn on any person or corporate body within the United States and without the State of Ohio. To entitle the holder to the statutory damages, the bill must be regularly protested under the notarial seal. No damages are given upon protested bills, when the drawer and drawee reside within the State, although the bill is made payable without the State.

A note made payable to any person, or bearer, may be transferred without endorsement.

In actions against the makers of sealed instruments—against the drawee, acceptor, or endorser of a bill of exchange—against the maker or endorsee of a promissory note, the plaintiff is not required to prove the signature of the party sued, unless the defendant will attach to his plea of the general issue in the case, an affidavit that the signature purporting to be his is not genuine.

USURY.

The law for the protection of the debtor against usury, is mild, but salutary. Six per cent is the established rate of interest on liquidated demands. A stipulation in a contract, for the payment of a higher rate, will not be enforced; but if illegal interest has been once voluntarily paid, it cannot be recovered back. No forfeiture or penalty is attached to a contract tainted with usury; it is valid and binding for the amount of principal and legal interest. Courts of equity will not relieve a debtor from a judgment covering excessive interest, unless he bring, or offer to bring the money justly due into court, when he files his bill.

A stipulation in a contract to pay collection fees, in addition to the principal and legal interest, is illegal, and cannot be enforced.

There are other points in our law interesting to the creditor, particularly the remedy he may have against his debtor before his claim has ripened into a judgment, which will be considered in a future number.

## Art. VII.—COST OF WHEAT-GROWING.

In the Merchants' Magazine for March, 1847, we published a letter from an intelligent farmer of Western New York, in relation to this subject, with some comments of our own thereon. We have received the following, in reply to those comments. We insert the communication of our correspondent, premising, however, that a magazine is not exactly the arena for a controversy; and we shall therefore forbear to push the subject further than to correct some apparent misapprehensions on his part; the fact that wheat can be raised at the low price we stated, being too well established, practically, to be overthrown by speculations.

We have italicised some lines that we wish to correct. We did not say that seed should not be charged in the expense, but that it should be deducted from the product, and the expense of raising charged upon the balance. The prophecy in relation to what *will be the result* of a certain system of farming, does not affect the expense of that system *now*. We did *not* give the comparative *statement of the best eight wheat counties for the purpose of showing the product per acre per head*, but simply to show

the *decrease* of population in those counties where it costs *much* to raise wheat, and the *increase* in those counties where it can be done for less. A little reflection will show our correspondent that he is in error, in what he thinks an "important" comparison, viz.: the product of wheat, with the number of the population according to the census. If he can show that all the population in each of the counties cultivate wheat, or that each working farmer has the same number of *children*, his comparison will be good. As thus—a man with 50 acres, 20 in wheat, raises 400 bushels, numbering himself, wife, and hired man, being 133 bushels per head. Next year his wife may have *twins*, and the average at the same crop will be, according to the census, 80 bushels per head. In a few years he may have four children, and, with the same crop, the average will be reduced to 57 bushels per head. There is, however, no diminution in the reward of labor! The comparison of the number of the population with the wheat raised in the county, is altogether erroneous!

We do not see that the fact of Detroit, Monroe, and St. Joseph's, being outlets for the products of other counties, weakens the inference that large receipts at those places come from the wheat counties rather than from those counties that produce but little of the grain; nor that the continued and regular receipt of *increasing* supplies, in years of low prices, can be taken as evidence of a losing business.

MR. FREEMAN HUNT:—

SIR—Although it may savor of presumption, for an obscure farmer, born and bred upon the soil, to enter into a controversy with the accomplished editor of the Merchants' Magazine, albeit on a subject with which he is practically acquainted, yet, as the cost of raising wheat is a subject of considerable interest, and to more than one class of the community, I shall request you to publish this answer to your comments on my communcation,* commenting on your paragraph in the Merchants' Magazine for October, 1846.

Your correspondent, however "irrelevant" his statements may have been, did not "mistake the point of your remarks," which was, that "wheat can be delivered in unlimited quantities in sacks, on the borders of the great lakes, for 16 cents per bushel, free on board." What I undertake to show, is, that it cannot be delivered in any quantity worth mentioning for that price. It may be observed here, that the average per acre, is an item of the first importance in making up an estimate of cost. Your correspondent places it at 20 bushels,—not because a much larger amount may not and has not been raised, for he knows that in isolated cases it has been largely exceeded, both in New York and at the West,—but because he is satisfied that it is *more* than an average, both for this State or any Western State. Having but imperfect statistical data from any Western State, on this subject, my statements must necessarily lack the sanction of official authority. The average for a section of country of some extent, is doubtless the true data on which to found an estimate of this kind. It would be false to found a statement of the cost of raising wheat in the town of Wheatland, from Mr. P. Schaeffer's crop of 2,400 bushels, on 40 acres, or from Mr. Blackmer's crop of over 60 bushels per acre, both raised in this town, when experience shows, that for a term of years the average is but 22 bushels per acre. The wheat crop of England, with her cheap labor, high prices, and scientific agriculture, has not yet, I believe, reached an average of 30 bushels per acre; and it is but a few years since it did not exceed 15. With these facts before us, can we believe that 30 bushels per acre is an average for any Western State, with its imperfect culture, low prices, and high labor? But giving you that advantage, I propose to show that it cannot be raised even on that average, in any *considerable* quantity, for 17 cents per bushel.

* See Merchants' Magazine for March, 1847, Vol. XVI., No. 3, pp. 263–296.

You state the expense of purchasing and fencing Western lands at $3 50 per acre, which is probably not far from the truth. The interest of that, at 7 per cent, is 24½ cents, say 25. Well, after having fenced and broken up his land, the Western farmer certainly has to plough once, at least, which we will put at 88 cents; two harrowings, 25 cents each; sowing, 6 cents. Notwithstanding *your opinion to the contrary*, I must still consider seed as an item to be charged to the expense of producing wheat, as I before did; for the Western farmer certainly has, in the beginning, to buy his seed corn, and in that case it cannot be estimated on your principle; and so of any future crop. The true way to estimate the profit or loss of a crop, is to charge it with all its expenses, and credit it with all its products—seed, 1½ bushels at 50 cents, 75 cents per acre. You are in error, in supposing that the smooth lands of the Western lake shores afford facilities for machine labor, which do not exist here, thereby reducing the items of harvesting and thrashing to one-half of my statement. On the contrary, Hall's Improved Thrasher and Separator, made at Rochester, in this county, is believed to be as good a machine as is to be found in any Western State, as it thrashes and cleans, ready for market, from 300 to 400 bushels per day, in good wheat; he is also constantly building them for the Western market. It has also become the annual business of some men from this county, to transport their machines and horses to all the Western States, as far as Illinois, for the purpose of thrashing; and if your statement is correct, they go there to work for half price, with their expenses and loss of time to boot. It costs more there than it does here—put it at about the same—say $9 per 100 bushels, which is about an average, and it will give $2 70 per acre, or, on an average of 20 bushels, $1 80. The same general remark may be made in relation to harvesting, as we have a firm in Brockport, in this county, who are manufacturing harvesting machines by the hundred, on Western account, and for this State, also; but as machine labor for harvesting, has not been yet fully tested, it is too soon to say what its ultimate effects may be; and as it has not yet, either here or at the West, to any considerable extent, superseded the use of the cradle, I must still base my estimate on that, which will be about, on an average, $1 50; then there is marketing, which will cost more than 4 cents; but call it that, and we have the following results:—

| | | | |
|---|---|---|---|
| Interest,..... | $0 25 | Harvesting,..... | $1 50 |
| Ploughing,..... | 0 75 | Thrashing,..... | 2 70 |
| Harrowing,..... | 0 50 | Marketing,..... | 4 |
| Sowing,..... | 0 6 | | |
| Seed,..... | 0 75 | Total,..... | $6 55 |

Which would give within a small fraction of 22 cents per bushel, and on 20 bushels, a small one over 28 cents. Good practical farmers will certainly smile incredulously at the idea of producing wheat in this way; yet, to show its absurdity, it is perhaps well enough to state it so; but the practice of sowing wheat, with once ploughing, after wheat, as is practised pretty extensively at the West, is ruinous in the end. It has been tried here, and utterly failed; *it will do the same there.*

You give us a statement of *the best eight wheat-growing counties in this State*, compared with the same number of the best in Michigan, (and I believe them to be as good as any eight counties in any Western State,) for *the purpose of showing that the average* of wheat, in these counties, is 30 bushels per acre; and that, combined with cheap land and tillage, they can produce wheat at 17 cents per bushel. *But there is one comparison you have not made, and an important one, too*, in the absence of positive statistical data. It appears, then, that excluding the city of Rochester, in Monroe county, the population of these eight counties, in 1840, amounted to 321,538, and the product of wheat, 6,137,838 bushels; this would give an average of 19¼ bushels for each inhabitant. In 1845, with a diminished population of 317,613 inhabitants, the same counties show an increased production of 6,441,090 bushels, being 20¼ bushels to each inhabitant. In the eight counties of Michigan, in 1840, with a population of 109,183, the product was 1,394,452 bushels, or 12¾ bushels to each inhabitant—call it 13; and it shows that in 1840, the product of one man's labor, in New York, was 6 bushels greater

than in Michigan, and in 1845, it was upwards of 7 bushels greater. Now, what results do these figures produce, and what facts do they substantiate? The first is, that the labor of one man, in the State of New York, produced, in 1840, one-third more than the same amount of labor in Michigan. It demolishes the 30 bushels per acre theory. It also demolishes the theory of raising wheat at 17 cents per bushel; for, if the labor of one man in New York, produces one-third more than the same amount of labor in Michigan—when the average product of wheat, in New York, is *under* 20 bushels per acre, and the cost *over* 50 cents per bushel—by what process of reasoning can it be shown that the laborer in Michigan produces *double* the amount at one-third the cost? It is also to be observed, that the population in Michigan is more essentially agricultural than it is in this State. We have more men in other occupations than they have there. It is the sons of our farmers who go West, not the men whose strong arms hewed down the forests of Western New York; they stay here to enjoy, in the evening of life, the reward of their youthful toil. Consequently, there is, from these causes, a greater number of unproductive inhabitants in New York, than in Michigan—thus enhancing, in a still greater degree, the difference in favor of the New York farmer.

But your correspondent is not left wholly to inference, in this matter. He has himself had some practical acquaintance with wheat-growing in Michigan, in Van Buren county, adjoining Kalamazoo—which ranges highest in your list in production, according to population, partaking of the same general characteristics—and his product was much under 20 bushels per acre.

There are many other expenses, connected with the production of wheat, that have not been enumerated in this communication. Thus, a barn is almost as essential to a farmer, as fences; and although it costs a considerable sum of money to get a good barn, yet it costs more to do without one. And as a farmer and his family can neither, like the prairie dogs, burrow in the earth, nor, like the birds of heaven, nestle amid the boughs of the forest, it follows that he must have a house to live in. Although both may be of the cheapest kind, yet they go to increase the amount of his investment; and as they are fixtures to the soil, the interest and decay, incident to such structures, is just as legitimate an item of calculation, in his profit and loss account, as the pull and wear and tear of a press is, to a printer.

Although the statistics of the three ports of Detroit, Monroe, and St. Joseph's, are irrelevant to the present subject of inquiry, yet, as they are introduced for the same apparent purpose, it may not be inappropriate to notice them. The export of the three ports, in 1841, was 257,962 barrels of flour, and 164,607 bushels of wheat; in 1846, it was 748,533 barrels of flour, and 722,889 bushels of wheat. Comparing the exports for the two years, you come to the conclusion that *if* the increased production in the eight counties bears the same proportion to the exports of the three cities, in 1846, that they did in 1841, the whole crop, for 1846, must have reached 2,800,000 bushels. *This reasoning might be nearly correct, if the three cities named were the ports of transit for the eight counties only; but they receive, not only their product, but that of fourteen or fifteen other counties in Michigan*, besides a part of one or two in Ohio, and four or five, in whole or in part, from Indiana. It is also to be observed, that the Central Railroad has been constructed to Kalamazoo, and the Southern road to Adrian, giving to the ports of Detroit and Monroe a cheap and expeditious, in place of a slow and expensive line of communication, besides adding a considerable extent of territory to each, which before found an outlet elsewhere. Your conclusion, it appears to me, cannot be quite correct, as these ports form the outlet for nearly three-fourths of Michigan, and the eight counties named, produced, in 1840, about two-thirds of the entire product of the State—the whole quantity produced in the State being 2,157,108 bushels; and as the parts of Ohio and Indiana are excluded in this aggregate, and included in the amount of exports, they will about balance the remainder of Michigan which goes elsewhere, so that the most correct basis would be, the whole product of Michigan in 1840. This would show a different result from that at which you arrive. Reducing the flour to wheat, it would give an

aggregate of 3,091,281 bushels, allowing a barrel of flour to be equal to 4½ bushels of wheat. Allowing 4 bushels per head for home consumption, and the population of the State now, to be 2,800,000, (I have not the census for 1845 to refer to,) it would give, for the product of the whole State, 4,211,287 bushels. Deducting something for the exports included in this estimate from Ohio and Indiana, it gives an increase of nearly 100 per cent for the whole State, since 1840.

Your remark in relation to the great increase at Chicago, without internal lines of communication, is explained by the principle stated in my former communication. The year 1844, was one of low prices—wheat ranging from 40 to 60 cents per bushel. At that place, in the winter of 1845, it was from 75 to 98 cents, ranging for a considerable time at the last named price. The effect was, that an unlooked-for quantity was called out from distant points, reducing the price of flour in New York, in June, to $4 per barrel, and ruining the dealers. It was not the $4 per barrel, in June, that called out the wheat, but the high price of wheat of the winter preceding. S. W.

*Wheatland, Monroe County, New York.*

## Art. VIII.—COMMERCE OF FRANCE, IN 1844.

A GENERAL REVIEW OF THE COMMERCE OF FRANCE WITH ITS COLONIES, AND WITH FOREIGN POWERS, DURING THE YEAR 1844.*

THE following article is translated and made up from the Report of the Department of Customs of France, for the year 1844.

Some technical terms of frequent occurrence, it is important to notice. The terms "General Commerce," and "Special Commerce," are applied both to imports and exports. As applied to imports, "general commerce" includes everything brought into the kingdom, by land or by sea, without regard to its origin or final destination—whether it is for consumption, warehousing, re-exportation, or transit. "Special commerce" includes only what is consumed within the kingdom. As applied to exports, "general commerce" includes, in like manner, everything sent abroad, whatever its origin. "Special commerce" includes only articles of French production, and those which, having been, as it were, naturalized by the payment of import duties, are afterwards exported.

In speaking of the countries from which merchandise is imported, or to which it is exported, no regard is paid to its origin, or its final destination. Reference is made only to the country which the article last leaves before reaching France, or to which it is first carried after leaving France.

The valuations are made according to the value called "*official.*" These are the average prices approved by the royal ordinance of the 29th of May, 1826. The use of these values gives a uniformity to the national commercial reports, which makes it easy to compare the business of various years.

* For a similar analysis of the commerce of France in 1843, see Merchants' Magazine for July, 1845, Vol. XIII., No. I., pp. 26 to 37. We have also received the French official document, the Report of the Department of Customs, which was published at the close of 1846, furnishing the materials for a corresponding view of the commerce of France in 1845, which we shall lay before our readers in a future number of the Merchants' Magazine. Also, for an elaborate article on the trade and commerce of France, from 1827 to 1840, with full and complete tabular statements, derived from the French official documents, we refer the reader to the Merchants' Magazine for September, 1842, Vol. VII., No. III., pp. 229 to 241. Also, to same work, for May, 1843, Vol. VIII., No. V., pp. 435 to 439, bringing the commerce of France down to 1841, and the present paper to 1844.

General and Special Commerce. In 1844, the general commerce of France with her colonies, and with foreign nations, made renewed progress. Its total value was 2,340,000,000 francs.* This is 161,000,000 francs, or 7 per cent more than in 1843; and 248,000,000, or 12 per cent more than the average of the five years preceding 1844. There was a marked difference between the increase of the imports and that of the exports. Compared with 1843, and with the average of the period of five years, the imports increased 1 per cent and 9 per cent, respectively; the exports 16 per cent and 14 per cent.

The foreign products which France received for her own consumption, comprised 867,000,000 francs, out of the whole value of her imports. A comparison with the year 1843, and with the average of the period of five years, shows an increase in this respect, of 3 per cent and 11 per cent in favor of 1844.

Out of the whole value of exports, French products comprise 790,000,000 francs; 15 per cent more than in 1843, and 14 per cent more than the average of the five years.

The following table shows the ratio of the special to the general commerce, from 1839 to 1844; the general commerce being represented by 100:—

| | Imports. | Exports. | | Imports. | Exports. | | Imports. | Exports. |
|---|---|---|---|---|---|---|---|---|
| 1839.... | 69 | 67 | 1841.... | 72 | 71 | 1843.... | 71 | 69 |
| 1840.... | 71 | 69 | 1842.... | 74 | 69 | 1844.... | 73 | 69 |

Commerce by Land and by Sea. Of the whole foreign commerce, that by sea amounted to 1,658,000,000 francs, or 71 per cent; that by land to 682,000,000 francs, or 29 per cent. The value of the maritime trade was thus more than two-thirds of the whole.

Compared with 1843, and with the average of the period of five years, the maritime trade increased 6 per cent and 10 per cent; the land traffic

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* The table below shows the value, in millions of francs, of the foreign trade of France, for 15 years. The excess of the 2d period over the 1st, is 35 per cent; of the 3d over the 1st, 65 per cent; of the 3d over the 2d, 22 per cent:—

| | Years. | Importations. | Exportations. | Total amount. |
|---|---|---|---|---|
| First Period..... | 1830..... | 638,000,000 | 573,000,000 | 1,211,000,000 |
| | 1831..... | 513,000,000 | 618,000,000 | 1,131,000,000 |
| | 1832..... | 653,000,000 | 696,000,000 | 1,349,000,000 |
| | 1833..... | 693,000,000 | 766,000,000 | 1,459,000,000 |
| | 1834..... | 720,000,000 | 715,000,000 | 1,435,000,000 |
| | Total..... | 3,217,000,000 | 3,368,000,000 | 6,585,000,000 |
| Second Period.... | 1835..... | 761,000,000 | 834,000,000 | 1,595,000,000 |
| | 1836..... | 906,000,000 | 961,000,000 | 1,867,000,000 |
| | 1837..... | 808,000,000 | 758,000,000 | 1,566,000,000 |
| | 1838..... | 937,000,000 | 956,000,000 | 1,893,000,000 |
| | 1839..... | 947,000,000 | 1,003,000,000 | 1,950,000,000 |
| | Total..... | 4,359,000,000 | 4,512,000,000 | 8,871,000,000 |
| Third Period..... | 1840..... | 1,051,000,000 | 1,011,000,000 | 2,063,000,000 |
| | 1841..... | 1,121,000,000 | 1,066,000,000 | 2,187,000,000 |
| | 1842..... | 1,142,000,000 | 940,000,000 | 2,082,000,000 |
| | 1843..... | 1,187,000,000 | 992,000,000 | 2,179,000,000 |
| | 1844..... | 1,193,000,000 | 1,147,000,000 | 2,340,000,000 |
| | Total..... | 5,695,000,000 | 5,156,000,000 | 10,857,000,000 |

12 per cent and 17 per cent. From 1839 to 1844, there was an increase of 27 per cent in the imports by sea, and of 24 per cent in those by land. In the exports, on the other hand, the advance, from 1839, was greater in the land trade; that increase being 30 per cent, while the increase in the exports by sea was only 9 per cent.

MARITIME TRADE. The whole value (1,658,000,000 francs) of merchandise transported by sea, was divided between French and foreign vessels, as follows:—

| | |
|---|---|
| French vessels..... | 764,000,000f. or 46 per cent. |
| Foreign vessels..... | 894,000,000 or 54 per cent. |

Comparing, as before, with 1843, and with the average of the period of five years, we find in favor of 1844, an increase of 6 per cent and 11 per cent, respectively, in the value of merchandise transported by French ships, and of 6 per cent and 9 per cent in that under foreign colors.

The value of the products transported by French shipping was divided in the following manner:—Restricted commerce, (with French colonies,) 250,000,000f. or 15 per cent of the whole; open commerce, 514,000,000, or 31 per cent of the whole.

In the restricted commerce, (still considering only the value of the merchandise transported,) there was an increase, compared as before, of 13 per cent and 29 per cent, which was chiefly in the trade with Algeria, Senegal, and the French East India establishments. In the open commerce, there was an increase of 3 per cent and 5 per cent.

TRADE WITH VARIOUS COUNTRIES. The countries with which the trade of France was most active in 1844, were the United States, England, Switzerland, the Sardinian States, the Germanic League, Spain, Algeria, Guadaloupe, Martinique, and Bourbon. Her trade with these countries amounted to 72 per cent of the whole of her imports and exports. In 1843, her trade with the same countries was 69 per cent of the whole.

The trade of France was greater, with each of these powers, in 1844, than in 1843, except in the case of Bourbon, whose trade with the mother country fell off 19 per cent.

The increase in value was as follows:—

| | | |
|---|---|---|
| United States 12 pr. ct. | Sardinian States 9 pr. ct. | Spain..... 26 pr. ct. |
| England.... 4 " | Belgium..... 15 " | Algiers.... 46 " |
| Switzerland. 13 " | German League 6 " | Guadaloupe 17 " |

The trade of France likewise improved in Europe, with Russia, the Low Countries, the Hanse Towns, and Portugal; in America, with Brazil, Mexico, Guatimala, and Hayti. With many other powers of the same two parts of the world, it decreased; especially with Turkey, Tuscany, the Two Sicilies, Norway, Austria, Cuba, Porto Rico, Rio de la Plata, and Uruguay.

With the East Indies, and with the different countries of Africa, (except the Barbary States,) the trade of France increased in 1844.

IMPORT TRADE WITH VARIOUS COUNTRIES. Of the whole of the general commerce of importation of France, for 1844, 12 per cent (143,000,000 francs) was from the United States. Of the products imported for internal consumption, 15 per cent (134,000,000 francs) were from the same country. Compared with 1843, the general commerce of France with the United States decreased 18 per cent; the special commerce, 7 per cent.

The value of the products imported into France from England, in 1844, was, in general commerce, 3,000,000 francs less, and in special commerce, 5,000,000 francs more than in 1843.

| | | | | | |
|---|---|---|---|---|---|
| 1843, | General Commerce | 148,000,000f. | Special Commerce | 86,000,000f. |
| 1844, | " " | 145,000,000 | " " | 91,000,000 |

At no previous time had the imports from France into Belgium been so large as in 1844. The value of merchandise of every kind and origin, received from that country, was not less than 125,000,000 francs. This was 22,000,000 francs more than in 1843, and 42,000,000 francs more than in 1839, the first year of the quinquennial period. Compared with the same two years, there was an increase of 13,000,000 francs, and of 32,000,000 francs in the value imported from Belgium for internal consumption.

The value of the imports from Russia, advanced, year by year, from about 32,000,000 francs, in 1839, to nearly 63,000,000, in 1844. Of this, 45,000,000 francs was for internal consumption.

The value of the imports from Switzerland, Tuscany, and the Germanic League, varied but little from what it had been in previous years. The imports from Spain and Egypt, on the other hand, advanced perceptibly.

In respect to other countries, a comparison of the values imported shows an increase in the commerce of France with her colonies of Guadaloupe and Martinique, with the English East Indies, the Low Countries, Brazil, Hayti, and the Hanse Towns; and a decrease in that with the Isle of Bourbon, Turkey, the Two Sicilies, Norway, Rio de la Plata, Austria, the Barbary States, Chili, and the Roman States.

Export Trade with Various Countries. The exports from France to the United States, during 1844, were not so large as in 1839 and 1841; but compared with 1843, they advanced 67 per cent in general commerce, and 45 per cent in special commerce.

| | | | | | |
|---|---|---|---|---|---|
| 1839, | General commerce | 205,000,000f. | Special commerce | 121,000,000f. |
| 1841, | " " | 184,000,000 | " " | 121,000,000 |
| 1843, | " " | 97,000,000 | " " | 66,000,000 |
| 1844, | " " | 161,000,000 | " " | 102,000,000 |

Of the value of exports of special commerce, silk fabrics amounted to 44,000,000 francs, woollen fabrics to 17,000,000, wines to 3,000,000.

Similar variations were apparent in the exports to England. The value of the exports to that country, which, in 1843, amounted only to 131,000,000 francs, (general commerce,) and 87,000,000 francs, (special commerce,) exceeded, in 1844, 143,000,000 francs, and 99,000,000 francs. These are, however, less than those of each of the first three years of the quinquennial period.

The value of the exports to Belgium, Russia, the Hanse Towns, Switzerland, and the Sardinian States, differed but little from what it had been in 1843.

In the value of merchandise sent to Algeria there was a sustained advance, as appears from the following table :—

| | General Commerce. | Special Commerce. |
|---|---|---|
| Average of the 5 years,.... | 39,000,000 francs. | 29,000,000 francs. |
| " 1843,..... | 51,000,000 " | 41,000,000 " |
| " 1844,..... | 77,000,000 " | 63,000,000 " |

Of the exports of special commerce, wines amounted to 7,000,000 francs; fabrics of every kind, to 32,000,000 francs.

In 1844, this colony held the fourth place among the countries which consume the products of the soil and the industry of France.

Spain, the Germanic League, Guadaloupe, Tuscany, and the Low Countries, afforded a market to a larger amount of the products of France, in 1844, than in 1843. There was, on the other hand, a decrease in the amount shipped to Martinique, Brazil, Bourbon, Chili, Rio de la Plata, and the Two Sicilies.

Articles of Import. Raw materials for manufacture comprised 709,000,000 francs, or 60 per cent of the whole value of imports, in general commerce, and 599,000,000, or 69 per cent, in special commerce. Articles for consumption in their natural state, comprised 266,000,000 francs and 214,000,000 francs, or 22 per cent and 25 per cent; and articles for consumption, in a manufactured state, 218,000,000 francs and 54,000,000 francs, or 18 per cent and 6 per cent.

Compared with 1843, and with the average of the five years, there was an increase in the importation of each of these classes of articles, except in these two cases. In general commerce the imports of raw materials for manufacture, were 4 per cent less than in 1843; and in special commerce, the imports of manufactured objects of consumption, were 1 per cent less than the average of the five years.

Cotton and silk were the articles holding the chief place among the imports. Cotton amounted to 111,000,000 francs in general commerce, and 105,000,000 francs in special commerce. These sums are less, by 13 per cent and 2 per cent, than those which represent the value imported in 1843.

The value of imports of silk was 103,000,000 francs; of this 61,000,000 francs were consumed in manufactures. This is nearly as much as in 1843, and 4,000,000 francs more than the average of the five years.

The value of grain imported for consumption rose to 51,000,000 francs. In 1843, it did not exceed 42,000,000 francs. In neither of the five years did it reach so high an amount as in 1844.

There was an advance both in the importation and in the consumption of colonial sugar. The increase was 9 per cent over 1843, and 14 per cent over the average of the five years, in special commerce, and 6 per cent and 5 per cent in general commerce.

In wool, imported for manufacture, there was an increase of 28 per cent and 30 per cent.

In 1842, the value of the oleaginous seeds imported for consumption, was 58,000,000 francs; in 1843, 48,000,000 francs; in 1844, 39,000,000 francs only.

The imports of spun flax and hemp amounted, in 1844, to 32,000,000 francs. This was 2,000,000 more than in 1843, but 14,000,000 less than in 1842; in which year, more was imported than in any other of the five.

The imports of linen and hempen fabrics were also less than in 1842, but greater, by 10 per cent, than in 1843.

The value of coal imported for consumption, in 1839, did not exceed 17,000,000 francs. In 1844, it reached 24,000,000 francs.

There was an increase, in 1844, both in general and special com-

merce, in the importation of indigo, coffee, cattle, horses, flax, and raw tallow.

The most important of the articles whose importation decreased, were common wood, raw hides, leaf tobacco, olive oil, and unwrought copper.

Articles of Export. The exportation, both of natural productions and of manufactures, increased in 1844. In general commerce, the value of the first class exported was 13,000,000 francs, or 7 per cent—that of the second class, 91,000,000, or 18 per cent more than in 1843. The value of natural products exported was 1 per cent—that of manufactures, 19 per cent above the average of the five years previous.

Among the natural products, wines, brandies, grain and madder demand special attention.

The exportation of wines was 51,000,000 francs; less, by 4,000,000 francs, than in 1841—but greater than in any other year of the five.

The value of the brandy sent abroad was 11,000,000 francs; less, by 3,000,000 francs, than in 1843.

The grain of French production exported, amounted to nearly 7,000,000 francs. This was above 1,000,000 francs more than in 1843; but 6,000,000 francs less than the average of the five years.

Madder figures for 10,000,000 francs, only, in the exports of 1844. This was 3,000,000 francs less than in either of the five previous years.

In the amount of French manufactures exported, remarkable progress was shown. The most important of these are woven fabrics, which advanced 71,000,000 francs beyond the exports of 1843. The following table gives that increase in amount and per centage, for the various fabrics:—

| | | | | |
|---|---|---|---|---|
| Cotton Goods..... | 26,000,000 | francs, or | 32 | per cent. |
| Woollen " ..... | 24,000,000 | " | 31 | " |
| Silk " ..... | 14,000,000 | " | 11 | " |
| Linen and Hempen goods..... | 7,000,000 | " | 31 | " |

Prepared skins, paper, crockery, glass, toys, haberdashery, wrought metals, perfumery and refined sugar, likewise show an increase more or less great.

Jewelry, fashions, spun flax, and hemp, are the principal articles whose exportation fell off.

Goods in Transitu. The amount of merchandise that passed through the kingdom, was greater in 1844, than at any former period. Its value was 230,000,000 francs; its weight, 468,512 metrical quintals,—an excess of 38,000,000 francs and 83,004 metrical quintals, over 1843.

Silk goods, reeled and thrown silk, cotton goods, and woollen goods, were, in point of value, the most important of the articles transported. They alone comprised 67 per cent of the whole, in value; though in weight, they held but a secondary place. In point of weight, cotton wool, cast iron, sugar and coffee, comprise more than half of the transitory commerce.

The transit of cotton wool, silk, and cochineal, decreased. All other articles partook of the advance, in this branch of trade.

The articles which crossed the French territory, were chiefly the products of Switzerland, England, the German League, the United States, the Sardinian States and Belgium. Nine-tenths, in value, of all the merchandise transported, came from these countries. A little more than three-

fourths of all the transitory merchandise sent abroad, went to the same countries.

The advance in this branch of commerce was chiefly in articles coming from Belgium and the German League, and in those going to the United States, Spain and Brazil.

WAREHOUSES. The merchandise of all kinds bonded, in 1844, amounted to 9,496,528 metrical quintals, valued at 664,000,000 francs—an excess over 1843, of 100,236 metrical quintals, in weight, and a decrease in value, of 22,000,000 francs. More than one-third of the whole value of merchandise warehoused, was stored at Marseilles, and nearly one-third at Havre. In weight, that at Marseilles was 49 per cent, and that at Havre 20 per cent, of the whole.

The warehouses of Paris, Bordeaux, Nantes, Lyons, Rouen and Dunkirk, received 27 per cent in value, and 16 per cent in weight, of the merchandise bonded.

The following table gives the value of the goods stored at the five principal warehouses, in the years 1839 and 1844:—

| | 1839. | 1844. | | | |
|---|---|---|---|---|---|
| Marseilles.... | 178,000,000 | 241,000,000 | an increase of | 35 | per cent. |
| Havre..... | 148,000,000 | 202,000,000 | " | 36 | " |
| Paris..... | 29,000,000 | 43,000,000 | " | 48 | " |
| Bordeaux..... | 65,000,000 | 59,000,000 | a decrease of | 9 | per cent. |
| Nantes..... | 19,000,000 | 17,000,000 | " | 11 | " |

The principal articles bonded, and their respective amounts, are as follows:—

| | Metrical Quintals. | | Metrical Quintals. |
|---|---|---|---|
| Grain..... | 2,674,007 | Cocoa, Coffee and Pepper, | 383,112 |
| Coal..... | 1,550,036 | Oleaginous Seeds..... | 344,457 |
| Colonial Sugar..... | 1,147,739 | Olive Oil..... | 281,950 |
| Cotton..... | 626,158 | | |

BOUNTIES. The sums paid on the exportation of merchandise, in 1844, under the head of bounties and drawback, amounted to 14,798,000 francs. This was 2,000,000 francs more than in 1843. The bounties paid for the encouragement of the fisheries, are not included here. They are paid by the Department of Commerce.

The increase was divided as follows:—

| | | | |
|---|---|---|---|
| Woollen cloths.. | 1,210,000 francs. | Cotton cloths... | 297,000 francs. |
| Fire-arms..... | 585,000 " | Foreign sugar... | 256,000 " |

The quantity of olive oil soap which received a bounty on export, was 43,000 metrical quintals. This shows a falling off, compared with 1843, of 14 per cent.

COD AND WHALE FISHERY. The returns of the French fisheries amounted, in 1844, to 437,660 metrical quintals of cod-fish, sperm and whale oil, and whalebone. In 1843, they were 453,870 metrical quintals. The decrease was chiefly in pickled cod and in sperm and whale oil. There was an increase in the returns of dried cod and of whalebone. The quantity of cod re-exported with a bounty, was as follows:—

| | | | |
|---|---|---|---|
| To the French Colonies..... | 56,559 metrical quintals, | or 56 | per cent. |
| Algeria..... | 3,085 " | " 3 | " |
| Other Countries..... | 40,637 " | " 41 | " |
| Total..... | 100,281 | 100 | |

Compared with 1843, there was an increase of 1,295 metrical quintals. Most of this was in the re-exportations to Martinique and the different American States.

DUTIES OF ALL KINDS. The duties received from customs amounted to 215,825,704 francs.

| | |
|---|---|
| Duties on imports..... | 152,114,261 francs. |
| " exports, navigation, &c..... | 7,020,290 " |
| Tax on the consumption of salt..... | 56,691,153 " |

The duties received on imports were 8,000,000 francs more than in 1843. The advance was chiefly on colonial and foreign sugar, coffee, wool, grain, coal, castings, cattle, and raw tallow. There was, on the other hand, a decrease in the amount of duties received on the importation of cotton, olive oil, table fruits, and the oleaginous seeds.

The tax on the consumption of salt fell off a little less than 2,000,000 francs.

Navigation duties decreased 300,000 francs.

Duties on exports and incidental receipts varied but slightly.

The receipts were divided among the various custom-houses as follows:—

| | | | |
|---|---|---|---|
| Marseilles..... | 36,688,000 francs, | or 17 | per cent. |
| Havre..... | 27,126,000 " | 13 | " |
| Paris (bonded,)..... | 23,476,000 " | 11 | " |
| Bordeaux..... | 13,773,000 " | 6 | " |
| Nantes..... | 12,683,000 " | 6 | " |
| Dunkirk..... | 8,540,000 " | 4 | " |
| Rouen..... | 5,851,000 " | 3 | " |
| Other custom-houses..... | 87,689,000 " | 40 | " |

NAVIGATION. The maritime commerce of France, colonial and foreign, employed 28,227* vessels, measuring 3,288,000 tons.

Forty-two per cent of the number of shipping, and 38 per cent of the tonnage, was under the French flag; 58 per cent of the shipping, and 62 per cent of the tonnage, under foreign colors.

Compared with 1843, there was an increase in favor of the French flag, of 330 vessels and 51,000 tons; and a falling off, of shipping under foreign colors, of 99 vessels and 10,000 tons.

Steam navigation comprises, of the whole, 6,297 vessels, measuring 750,000 tons; an increase, over 1843, of 608 vessels and 102,000 tons. This advance was divided between the French and foreign flags, as follows:—

| | | |
|---|---|---|
| French..... | 68 vessels, measuring | 26,000 tons. |
| Foreign..... | 540 " " | 76,000 " |

* This represents the number of voyages made by vessels employed in the maritime trade, but does not include those in ballast.

We annex, from the French official report, tabular statements of the French export and import trade with the United States, Mexico, and Texas, as follows:—

EXPORTS FROM FRANCE TO THE UNITED STATES IN 1844.

| Articles. | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Silk goods.....kilog. | 688,401 | f.77,755,744 | 379,041 | f.43,788,248 |
| Woollen goods..... | 928,045 | 21,185,231 | 790,695 | 17,436,164 |
| Cotton goods..... | 409,983 | 9,380,626 | 265,990 | 5,756,402 |
| Rabbit, hare, and beaver furs... | 102,491 | 4,099,640 | 16,180 | 647,200 |
| Cambric, lawn, and lace.value | ..... | 4,095,430 | ..... | 3,125,107 |
| Manufactured skins..... | ..... | 3,976,656 | ..... | 3,958,488 |
| Colored silks.....kilog. | 39,497 | 3,752,215 | 559 | 53,105 |
| Wines.....litres | 8,403,102 | 3,306,623 | 8,031,618 | 3,224,636 |
| Crockery, glass, & crystal...val. | ..... | 2,823,246 | ..... | 2,776,605 |
| Haberdashery.....kilog. | 332,534 | 2,707,828 | 323,903 | 2,627,122 |
| Madder, ground and unground | 1,901,126 | 1,901,126 | 1,901,126 | 1,901,126 |
| Wool..... | 441,946 | 1,767,784 | ..... | ..... |
| Clock & watch machinery.val. | ..... | 1,658,655 | ..... | 94,643 |
| Brandies.....litres | 2,328,868 | 1,630,208 | 2,328,754 | 1,630,128 |
| General utensils.....value | ..... | 1,350,260 | ..... | 1,185,580 |
| Straw, carpets & bundles....kil. | 38,878 | 1,299,176 | 5,515 | 126,688 |
| Olive oil..... | 677,163 | 1,151,177 | 1,386 | 2,356 |
| Pasteboard, paper, books, &c... | 258,816 | 981,370 | 240,113 | 914,667 |
| Perfumery..... ..... | 135,289 | 947,023 | 134,634 | 942,438 |
| Table fruits..... | 1,362,555 | 904,741 | 627,986 | 531,297 |
| Manufactures of India Rubber | 85,191 | 851,910 | 65,785 | 657,850 |
| Flax and hemp goods..... | 44,436 | 776,178 | 33,202 | 601,917 |
| Fashions.....value | ..... | 711,572 | ..... | 700,224 |
| Toys..... | 81,336 | 537,884 | 78,279 | 525,556 |
| Cream of tartar..... | 284,788 | 498,377 | 205,921 | 360,361 |
| Manufactured cork..... | 165,681 | 497,043 | 41,083 | 125,949 |
| Oleaginous fruits..... | 542,316 | 431,169 | 534,521 | 424,923 |
| Verdigris..... | 208,566 | 417,112 | 208,556 | 417,112 |
| Articles of Parisian industry... | 34,422 | 396,773 | 34,422 | 396,773 |
| Unbleached silks..... | 5,703 | 391,360 | ..... | ..... |
| Wrought metals..... | 166,671 | 369,451 | 165,449 | 360,668 |
| Essential oils..... | 3,396 | 339,600 | 1,861 | 186,100 |
| Phosphoric acid..... | 6,640 | 332,000 | 6,640 | 332,000 |
| Soap..... | 532,823 | 319,694 | 532,823 | 319,694 |
| Jewelry..... | 304 | 280,265 | 261 | 181,650 |
| Prepared skins..... | ..... | 271,189 | ..... | 252,278 |
| Liquors.....litres | 83,708 | 251,124 | 72,641 | 217,923 |
| Annato.....kilog. | 124,738 | 249,476 | 209 | 418 |
| Percussion caps..... | 39,406 | 236,436 | 39,406 | 236,436 |
| Prepared medicines..... | 29,182 | 202,850 | 29,051 | 202,180 |
| Musical instruments.....value | ..... | 197,931 | ..... | 195,987 |
| Sulphur.....kilog. | 1,050,971 | 170,209 | ..... | 143,903 |
| Furniture..... ..... | ..... | 143,368 | ..... | 141,621 |
| Felt hats..... | ..... | 134,269 | 787,909 | 134,269 |
| Other articles..... | ..... | 5,677,237 | ..... | 4,169,730 |
| Total..... | ..... | 161,354,436 | ..... | 102,007,522 |

IMPORTS FROM THE UNITED STATES INTO FRANCE.

| Articles. | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Cotton wool.....kilog. | 57,517,847 | f.103,532,124 | 54,248,522 | f.97,647,340 |
| Leaf Tobacco..... | 9,061,543 | 20,841,549 | 9,495,636 | 21,839,963 |
| Raw tallow and lard..... | 7,731,953 | 4,252,575 | 6,651,770 | 3,658,474 |
| Potash..... | 3,385,155 | 2,031,093 | 2,944,746 | 1,766,849 |
| Rice..... | 5,121,791 | 1,947,099 | 3,965,072 | 1,484,412 |
| Pig Lead..... | 3,210,297 | 1,444,634 | 2,735,847 | 1,231,131 |
| Oak staves.....No. | 3,766,850 | 1,209,673 | 3,465,233 | 1,104,036 |
| Gold dust.....kilog. | 36,343 | 1,090,290 | 36,343 | 1,090,290 |

IMPORTS FROM UNITED STATES INTO FRANCE—CONTINUED.

| Articles. | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Rough whalebone.....kilog. | 198,511 | f.694,789 | 133,149 | f.466,022 |
| Coffee..... | 748,697 | 636,392 | 285,307 | 242,511 |
| Salt meat..... | 871,210 | 609,847 | 21,452 | 15,016 |
| Raw hides.....value | ..... | 481,516 | ..... | 669,711 |
| Dye-woods.....kilog. | 2,394,352 | 478,870 | 320,455 | 64,091 |
| Quercitron..... | 1,108,892 | 399,202 | 922,800 | 332,208 |
| Gum copal..... | 145,305 | 348,732 | 76,767 | 184,241 |
| Pitch..... | 3,444,322 | 344,432 | 2,904,733 | 290,473 |
| Tea..... | 29,912 | 179,472 | 196 | 1,176 |
| Raw wax..... | 89,080 | 178,160 | 65,656 | 131,312 |
| Silk goods..... | 1,688 | 165,184 | 2 | 220 |
| Manufactured tobacco..... | 22,263 | 142,483 | 227 | 1,453 |
| Grain (ground)..... | 319,279 | 111,634 | 188,467 | 65,840 |
| Woollen shawls..... | 712 | 101,816 | ..... | ..... |
| Arachides..... | 89,525 | 67,144 | 90,022 | 67,516 |
| Essential oils..... | 2,043 | 66,720 | 1,317 | 34,220 |
| Cabinet woods..... | 211,078 | 65,313 | 256,227 | 81,024 |
| Pearls.....grammes | 3,110 | 62,200 | 2,550 | 51,000 |
| Cocoa.....kilog. | 65,383 | 58,845 | 147,823 | 133,041 |
| Pure copper..... | 27,226 | 54,452 | 25,918 | 51,836 |
| Broom grass..... | 53,254 | 53,254 | 53,254 | 53,254 |
| Hops..... | 36,691 | 45,863 | 24,188 | 30,235 |
| Vanilla..... | 111 | 27,750 | 156 | 39,000 |
| Pimento..... | ..... | ..... | 29,034 | 40,648 |
| Other articles..... | ..... | 797,600 | ..... | 692,699 |
| Total..... | ..... | 142,520,707 | ..... | 133,561,242 |

EXPORTS FROM FRANCE TO MEXICO.

| Articles. | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Cotton goods.....kilog. | 144,445 | f.3,493,793 | 122,570 | f.2,917,322 |
| Silk goods..... | 25,660 | 3,005,370 | 20,612 | 2,402,960 |
| Linen and hemp goods..... | 583,693 | 2,729,841 | 580,090 | 2,657,824 |
| Woollen goods..... | 44,147 | 993,068 | 42,500 | 955,773 |
| Paper, books, and engravings. | 105,982 | 433,602 | 105,492 | 430,186 |
| Crockery, glass, & crystal..val. | ..... | 400,044 | ..... | 341,718 |
| Wines.....litres | 272,628 | 339,097 | 271,844 | 338,465 |
| Prepared skins.....value | ..... | 216,720 | ..... | 216,720 |
| Haberdashery.....kilog. | 25,068 | 186,816 | 23,863 | 177,636 |
| Perfumery..... | 24,923 | 174,461 | 24,812 | 173,684 |
| Wrought metals..... | 27,773 | 129,417 | 26,997 | 126,016 |
| Machinery and instruments.val. | ..... | 112,602 | ..... | 112,602 |
| Arms.....kilog. | 11,386 | 110,573 | 588 | 9,267 |
| Brandy and liquors.....litres | 62,193 | 96,430 | 56,689 | 85,036 |
| Jewelry.....kilog. | 22 | 52,828 | 19 | 40,988 |
| Other articles..... | ..... | 1,348,314 | ..... | 957,175 |
| Total..... | ..... | 13,822,976 | ..... | 11,943,37[illegible] |

IMPORTS FROM MEXICO INTO FRANCE.

| Articles. | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Cochineal.....kilog. | 122,103 | f.3,663,080 | 80,280 | f.2,408,393 |
| Vanilla..... | 7,096 | 1,774,000 | 3,115 | 778,750 |
| Dye-woods..... | 5,942,042 | 1,188,408 | 5,615,835 | 1,123,167 |
| Raw hides.....value | ..... | 351,861 | ..... | 425,493 |
| Sarsaparilla.....kilog. | 63,870 | 191,610 | 28,503 | 85,509 |
| Jalap-root..... | 42,966 | 137,491 | 6,014 | 19,245 |
| Fir-wood.....steres | 412 | 12,360 | 412 | 12,360 |
| Copper.....kilog. | 3,948 | 7,896 | 613,191 | 1,226,382 |
| Other articles.....value | ..... | 55,631 | ..... | 39,474 |
| Total..... | ..... | 7,382,337 | ..... | 6,118,773 |

EXPORTS FROM FRANCE TO TEXAS.

| Articles. | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Wines.....litres | 54,807 | f.14,198 | 54,737 | f.14,093 |
| Brandy and liquors..... | 13,384 | 12,801 | 13,384 | 12,801 |
| Silk and velvet ribbons...kilog. | 85 | 10,200 | 85 | 10,200 |
| Colored paper..... | 2,749 | 6,872 | 2,749 | 6,872 |
| Crockery, glass, & crystal...val. | ..... | 5,438 | ..... | 5,438 |
| Refined sugar.....kilog. | 2,191 | 2,629 | ..... | ..... |
| Other articles.....value | ..... | 15,048 | ..... | 12,188 |
| Total..... | ..... | 67,186 | ..... | 61,592 |

IMPORTS FROM TEXAS INTO FRANCE.

| Articles. | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Cotton-wool.....kilog. | 53,483 | f.96,269 | 45,509 | f.81,916 |
| Masts.....No. | 114 | 11,400 | 114 | 11,400 |
| Oak staves..... | 23,627 | 8,269 | 23,627 | 8,269 |
| Raw hides.....value | ..... | 3,841 | ..... | 3,755 |
| Other articles..... | ..... | 5,543 | ..... | 2,625 |
| Total..... | ..... | 125,322 | ..... | 107,965 |

# MERCANTILE LAW CASES.

SALVORS—NEGLIGENCE—DIMINUTION OF SALVAGE.

Where essential service has been rendered, the amount of compensation for that service may not only be diminished by reason of the subsequent negligence or misconduct of the salvors, but all reward may be forfeited.

A ship in great distress was taken by the salvors to, and anchored in, a place of comparative safety: she might have been placed in perfect safety, if the salvors had then availed themselves of further assistance, which was offered, but instead of so doing, they left her at anchor for six hours, while they proceeded for ropes and spars to their own port:—Held, that the salvors had not conducted themselves with due regard to the lives and property on board the ship, and that the amount of salvage must be diminished.

In the British Court of Admiralty. Before the Right Honorable S. Lushington. The Dosseitei—July 18th, 1846.

This was an action brought by the owners, master, and crew of the pilot lugger Pet, to recover remuneration for services rendered, on the 24th of February, to the Dosseitei, an Austrian brig bound from London to Trieste, the value of the ship, freight, and cargo, being estimated at £10,000. She left St. Katharine's Docks on the 15th of February, but before she got out of the channel, experienced very severe weather, which caused her to labor extremely. On the 22nd, a tremendous sea struck her, causing her bowsprit to break right over the figure-head, carrying away the fore-mast and main-mast, the latter close to, and the former four feet from the deck, breaking the caboose and starboard rails in several places; the whole of the masts, yards, sails, &c., hanging over the side of the vessel, and striking heavily against her. The master and crew, fearing that some other planks might be started, and being in so perilous a situation, came to the resolution, for the safety of their lives, the ship and the cargo, to cut away the rigging close to the rails, and after much difficulty, they accomplished this, and got clear of the wreck; jury-masts were then rigged, and other measures adopted, and she returned towards the Bristol Channel. On the 23rd, fearing a lee-shore, they bore up for the Scilly Islands; and on the 24th, saw St. Agnes Light, bearing north-east, distant about twelve miles. At eight A. M., they hoisted a signal for a pilot, or as a signal of distress. In that situation they were perceived by the salvors, eight in number, who immediately put off to their aid, and boarded her about two

miles from the anchorage and port of New Grimsby—the lugger took them in tow for about five minutes, and then let go the anchor in twenty-two fathoms. The master of the Dosseitei wished them to take the vessel further in; but they alleged their ropes were insufficient for that purpose, and sent the lugger to St. Mary's for a hawser, though another cutter, the Antelope, had come up and offered her assistance. The hawser being procured, and additional spars and sails, the brig was conducted in safety into New Grimsby.

Dr. Lushington, addressing himself to the Trinity Masters:—"There are two or three questions on this occasion, respecting which I shall wish to avail myself of the benefit of your advice. In order to put these questions clearly, it will be necessary for me to advert, but shortly, to some of the circumstances attending the case, because I think the great and most important facts are uncontradicted. The question is as to the result of these facts, and the conclusion to be drawn from them. This was a foreign vessel leaving the port of London, and going to the Mediterranean with a valuable cargo, the admitted value being more than £10,000. After she had got out of the channel, she met with tempestuous weather; the consequence of which was, she became dismasted in latitude 47 deg. North and longitude 9 deg. 50 min. West. The master and crew immediately resorted to the usual methods for the purpose of repairing the damage as well as they could. They then proceeded towards the Bristol Channel, according to their own statement; but, finding the wind came on from the South, they directed their course to the Scilly Islands, and did so, notwithstanding the state of the wind and the weather, skilfully and successfully. On the 24th, they were in the neighborhood of the harbor of New Grimsby,—at what precise distance is one of the contested facts in the case, which, I believe, it will be very difficult, if not impossible to solve. But there always is this difference as to the precise spot at which a vessel is boarded, and the precise length of time it takes to bring a vessel into a place of safety; and on the present occasion it does not appear to me to be a matter of great importance as respects the questions which we have to determine. A vessel belonging to St. Mary's went out to her assistance; and here arises the first question, whether there was a signal for a pilot or a signal of distress. It has always been held by me, as long as I have presided in this court, and the same principle was acted upon by my predecessors, that where a dispute arises as to whether it be a flag of distress or a flag for a pilot, we must determine that fact by the state of the vessel itself. Every day's experience shows us that on the one side it is said to be a signal of distress, and, on the other, for a pilot. I should say, on the present occasion, that, even if the master intended it to be nothing more than a flag for a pilot, it would make no difference in this case: because, when a vessel is in the condition this was in, notwithstanding all that was done to refit her, her master is not in a condition to say, "Give me a common pilot." A pilot, or any one else, who takes charge of a vessel in her condition to bring her to a place of safety, does more than a pilot is bound by his duty to do for ordinary pilot compensation. But let me not be misunderstood. I do not mean to say that it is not the duty of a pilot to take charge of the vessel; but if he does take charge of her in this state and condition, he is entitled to a higher reward than the sum prescribed for common pilotage. The salvors then came on board, and they then thought she had not sufficient sail to carry her to New Grimsby, and they sent their own boat away to bring a quantity of additional spars for hoisting more sail; and this duty was, according to their account, attended with very great danger, considering the state of the wind and the weather. Upon this point, I want your opinion as to whether it was necessary for the pilot and men, having boarded the vessel, to go back in their own boat, and procure these spars and sails. Whether that was necessary, and attended with danger, is the first question. To pass on: this was done, and the vessel was afterwards conducted till she came where she was taken in tow, at a later period, by the pilot cutter. She was conducted with facility to Shipman's Head, and as soon as she was got round the head, she was anchored in twenty-two fathoms water. So far, I do not know that there is any point which requires further consideration; for I do not know that it is a matter of dispute, that all this was rightly and properly

done. It was attempted to be argued, that the vessel might have been carried into the harbor at once; but, looking at the evidence, I do not think that this is proved. The vessel, then, is brought to anchor; and here arises a question of very considerable importance, which is, whether the vessel, so anchored, was in a state of safety, or whether she was exposed to risk; and whether, not only according to the evidence, but according to your nautical experience, being acquainted with the state and condition of these islands, and what supplies they could properly furnish, you are of opinion there was improper conduct on behalf of the pilot lugger, which, instead of attempting to procure all the warps that might have been had in the neighborhood, left the vessel in that situation for six hours, and went to St. Mary's. This is a very important question; because, if it was their duty to have immediately adopted every measure in their power to bring the vessel further on, and to place her in a state of safety, and if they wilfully neglected so to do, with a view of keeping to themselves the whole reward of the service, to the disregard of the safety of the property, unquestionably it will considerably deteriorate from any merit they may possess, and take from any reward to which the court might consider them otherwise entitled."

Having received the opinion of the Trinity Masters,

Dr. LUSHINGTON resumed:—"The gentlemen who have favored me with their assistance, are of opinion that, considering the state of the wind, this vessel was, at the time she was boarded by the pilot lugger, sufficiently under command to have accomplished her voyage to her then intended port, namely, Shipman's Head; that there was no necessity for procuring further materials from on board the pilot vessel, or adopting those measures which were pursued by her. They think the lugger rendered assistance and was of service to the ship, by towing her round the point so as to bring her to anchor off Shipman's Head, and the bringing her to anchor was a proper measure; but that, having so done, it was their duty immediately to have availed themselves of every possible assistance in order to have completed their undertaking, and have brought the vessel further up, so as to have put her in a place of safety; that she was, during the time she lay there, exposed to risk and danger, in case the wind had changed. Now, with respect to the fact, whether they had additional means at their command, and whether those means would be sufficient, looking at the evidence, I am inclined to come to the conclusion that there would have been ample means without sending to St. Mary's, and incurring a delay of six hours; that there would have been sufficient ropes to conduct this vessel to a place of safety. But, whether these ropes would have been sufficient or not, the Trinity Masters are of opinion, that those on board who came from the pilot lugger, ought to have availed themselves of the assistance proffered by the Antelope, and the ropes on board her, and any other ropes which could be obtained. They ought to have made every effort to bring the vessel further up, instead of leaving her where she was. The question is, in these circumstances, to what extent the court ought to allow remuneration of these parties. I should be very reluctant to come to the conclusion, that this last act of these salvors was wilfully done; that is to say, that they deliberately, foreseeing a probability of danger, would not avail themselves of the means which offered of putting this vessel into a place of safety; but, for the sake of keeping to themselves the whole of the reward which had been offered, deliberately, and with malice aforethought, as it were, left the vessel at anchor, and proceeded to St. Mary's. I am inclined to take this view of the matter, that it was done without sufficient reflection and thought, though undoubtedly actuated by the improper motive of keeping to themselves the whole of this reward. Were I of opinion that they had declined to avail themselves of the services of the Antelope, or attempted to procure ropes from the shore, with a wilful and deliberate disregard to the safety of this vessel, and that they were entirely and exclusively actuated by the hope of gain, it would be my duty to pronounce against this claim altogether. But I think I should go too far, if, in the circumstances of this case, I visited these men with so heavy a punishment. But these considerations do operate upon my mind, and very forcibly, to induce me to make a diminution of the amount which otherwise would have been given to them. I should have thought, that, looking to the great value

of this vessel; looking to her damaged state and condition, and looking to the probable danger at that tempestuous season of the year, in which she might have been placed by a change of wind and an alteration in the weather, they would have been entitled to a considerable reward, even for the short services which they did perform. Seeing of how great importance it was to those whose lives were risked on board this vessel, and to those whose property was there, that she should have been placed in a state of safety as soon as possible, I should have allotted a large sum; but seeing that these persons have not conducted themselves with the propriety they ought, I shall diminish that sum. The amount I shall allot will be £50. With regard to the costs, I think I must allow them to the salvors, because otherwise I give them nothing. But I wish it to be distinctly understood, and to be well known, that the court always will, and in another case probably may, visit with great severity conduct on the part of salvors, who do not avail themselves, in cases of danger, of any proposed assistance, to bring a vessel into perfect security.

PROMISSORY NOTE.—ACTION OF ASSUMPSIT.

In the Supreme Judicial Court of Massachusetts, (1847,) before Judge Hubbard.

William P. Thompson, *v.* William Shepherd.

This was an action of assumpsit, commenced in the court of Common Pleas, on a promissory note, dated November 15, 1843, for the sum of $200, payable in ninety days from date, made by the defendant to Charles Beaumont, or order, endorsed by Beaumont to S. C. Bugbee, and by Bugbee to the plaintiff. The defence set up was, that the note was given by defendant to Beaumont, and by him endorsed to Bugbee, without consideration, and for the accommodation of Bugbee, and that it was transferred by Bugbee to the plaintiffs after it had become overdue.

The facts, as they appeared in evidence upon the trial, were these:—Beaumont and his wife conveyed certain land upon Jamaica Plain to Shepherd, for three cents per foot, he agreeing to permit Beaumont to negotiate sales of it, and to receive for himself all that he could sell it for beyond that price. Accordingly Beaumont negotiated a sale to Bugbee of a part of the land at four cents per foot, making a difference of six or seven hundred dollars, and Shepherd conveyed to Bugbee, and took back a mortgage to secure the purchase money. Beaumont testified that he had released Shepherd from his engagement, so far as it concerned this lot, before the note in question was made.

To induce Bugbee to purchase the land and build a dwelling-house upon it, Beaumont, owning a tract of land adjoining, and believing that it would be benefited by the erection of the house, promised Bugbee to loan him, to aid in building the house, five hundred dollars, to be paid from the proceeds of the sale of it. And Bugbee testified that he would not have made the purchase and undertaken to build without this promise from Beaumont. Bugbee commenced building, and Beaumont, when called upon by him for part of the money, procured, with Bugbee's assent, the note in question from Shepherd, and endorsed it to Bugbee, who gave him a receipt for it, promising to account for the amount out of the proceeds of the sale of the house. Beaumont testified that Shepherd received no consideration for the note, and that if Shepherd were obliged to pay it, he should be bound to repay him. Bugbee endorsed the note, and had it discounted; but at its maturity it was protested for non-payment, and Bugbee, as second endorser, took it up, and afterwards transferred it to the present plaintiffs to pay for work done on the house. The house had not been sold at the time of the trial.

The presiding judge instructed the jury, that the note having been taken by the plaintiffs after it had become due, it was subject in their hands to all the objections and equities to which it was liable in the hands of Bugbee; and that if it was made for his accommodation, they could not recover; but that if Beaumont procured the note from Shepherd, and endorsed it to Bugbee in pursuance of a valid agreement to lend him money, to be repaid from the proceeds of the house, it could not be considered as coming within the rule of law, as to accommodation notes without consideration, negotiated when overdue, although the note might have been made by Shepherd for Beaumont's accommodation, without considera-

tion. The defendant's counsel requested the judge to instruct the jury, that if Shepherd, when he gave the note, were ignorant of Beaumont's promise to Bugbee, above stated, their verdict should be for defendant. But the instructions of the court were, that if Shepherd were a party to the agreement with Bugbee, and gave the note to be transferred to him instead of money, and the note were transferred to the plaintiffs before the sale of the house, they were entitled to recover; but that if it were made by Shepherd for Bugbee's accommodation, without knowledge of, and assent to the agreement with respect to repayment, they could not recover.

The jury returned a verdict for the plaintiffs, and the defendant excepted to the rulings and instructions of the court, as stated above.

HUBBARD, J., delivered the opinion of the court. The instructions of the court below were held to be correct. The note appeared to have been given by the defendant to Beaumont for his accommodation,—not for the accommodation of Bugbee. And in order to affect it in the hands of the present plaintiff, it lay with the defendant to bring home to Bugbee the knowledge of the fact of its want of consideration.

Exceptions overruled, and judgment on the verdict.

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# COMMERCIAL CHRONICLE AND REVIEW.

LOAN OF THE UNITED STATES FEDERAL GOVERNMENT—AN EVIDENCE OF POWER AND RESOURCES OF THE NATION—VALUE OF THE PRECIOUS METALS IN ENGLAND—CONSUMPTION OF BREADSTUFFS, AND BULLION IN THE BANK OF ENGLAND—PRICES OF LEADING IMPORTS IN LONDON—BRITISH GOVERNMENT LOAN—IRISH LAND SYSTEM—IMPORTS AND DUTIES AT NEW YORK FOR FOUR MONTHS, 1846, '47—PRICES OF EXCHANGE AT NEW YORK AND NEW ORLEANS—EXPORTS OF BREADSTUFFS TO ENGLAND—RECEIPTS OF PRODUCE—UNITED STATES MINT, ETC., ETC.

IN our last number we referred, among those general features which the markets present most prominently, to the contraction of a loan of $22,000,000 by the federal government. Of this amount, bids for $18,000,000 were received to the 10th April, which, being Saturday, resulted in the promulgation of the contracts on Monday, the 12th. Some surprise was manifested at the fact, that the total bids amounted to more than $58,000,000, or three times as much as was required. Of this amount, $55,000,000 was above par, and $18,000,000 at a premium; of which, $16,000,000 was awarded to Corcoran & Riggs, at Washington; $1,500,000 to Elisha Riggs, in New York, and $500,000 to another broker-house in Wall-street. It is remarkable that these notes sold at 3 per cent premium the day after the bids were known, and subsequently at 4 per cent. The leading capitalists of New York and Boston, who, together, have heretofore controlled operations of this nature, were left without a dollar; but it soon became apparent that large quantities had been taken to sell, and at the board all brokers showed a disposition to sell at 3 per cent premium. Considerable dissatisfaction was manifested at the manner in which the bids were taken. It was intimated, that, from the fact of there being no specified time and manner for opening, that parties at Washington might have obtained information from other bids to guide their own offers. The recent English loan of £8,000,000, was conducted in a different manner. A day and hour being appointed, the Ministers met the leading capitalists of London, and the former laid upon the table a sealed paper con-

taining the lowest terms that the government felt authorized to take. The offers were then taken, and that of Mr. Rothschild's, being 89¼ per cent for a 3 per cent stock, was accepted as the highest; and inasmuch as that it was higher than the government proposals, the latter were not opened. This is supposed to be a fairer mode of proceeding than that adopted at Washington; but, connivance being supposed possible, we do not see that it is more effectually guarded against in the one case than in the other. The facts are, that those who would offer *par* only to the government, must now pay 3 per cent premium to individuals; whereas, those who offered ¼ a ⅜ premium, got the stock. It is true that two circumstances operated in favor of the value of the stock after the bids were closed. These were, the capture of Vera Cruz and the amount of the bids. The news of the first reached Washington on Friday, and was in New York early on Saturday; too late to affect bids, but it was sufficiently early in Washington, and could not have been foreseen. The amount bid could not have been known until all the tenders were opened. The fact, that an amount of capital so unprecedented in this country was seeking investment, gave great additional value to the stock, which was again enhanced by the prospect of peace.

The circumstances themselves are in the highest degree satisfactory, inasmuch as that they speak volumes in favor of the power and resources of the nation, which, for the first time in its history, displays, in a great emergency, the most ample means within itself, and discloses its independence of foreign financial aid. The taunt, that the United States could not go to war without loans from Europe, cannot now be repeated. It being established that the military and financial resources of the nation are fully equal to any and every emergency, the Union has nothing henceforth to dread from foreign aggression; a fact, which will probably do more to shield her from the horrors of war than almost any other considerations.

It is not, however, to be understood, that because $58,000,000 have been offered the government and but $18,000,000 accepted, that therefore there are $40,000,000 seeking investment. It is the case, to some extent; but many of the offers were from persons without present means, and who depended upon the sale of the stock at a profit to make good the contract. To a considerable extent, however, probably $15,000,000, funds have been collecting, to await the bids. Of these, a proportion will be demanded by the government, and the remainder seek other channels of investment; hence, a more abundant money market is looked for. It is remarkable that this unusual display of capital for investment, has been made simultaneously with the operation of the new system of finance brought into operation by the government. This system has, however, been supported by very unusual circumstances in Europe. In 1844, when the Bank of England was re-chartered, the hard money principle was applied to it with a very considerable degree of rigor. The effect of this was, as we have remarked in former numbers, to cause the precious metals to be more valuable in England, as compared to other commodities, than they had previously been since the American war of independence; and as the paper system had been gradually extending itself in the smaller channels of commerce, on the continent of Europe, the precious metals were consequently losing their value there, at the same time that their value in England was becoming enhanced. From this general cause grew the fact, that the bullion in the Bank of England, July, 1846, was greater than it had ever before been, and that this took place simultaneously with inordinate importations

of corn. An importation of corn *per se*, does not necessarily derange the exchanges. The mere fact that corn, or any other one article is imported, does not produce an export of coin. It is only when a general rise in prices, growing out of an inflated currency, causes the sum of the imported goods and produce to exceed the aggregate money-value of the goods exported, that a portion of the precious metals is required to make up the balance. This may happen without an importation of corn, and did so during the few years that ended in the revulsion of 1837, during which no corn was imported. It was to guard against this, that the specie principle was adopted in the re-charter of the bank; and that it has fully answered the anticipations, is manifest in the state of the bullion and money market after the importation of such quantities of foreign food as were consumed in England, in 1846. The following are the quantities of grain and flour consumed in England, for each of the last five years, and the bullion in bank at the end of each year:—

| | 1842. | 1843. | 1844. | 1845. | 1846. |
|---|---|---|---|---|---|
| Grain.....qrs. | 2,945,398 | 3,172,349 | 2,533,631 | 1,344,221 | 4,305,385 |
| Flour.....cwt. | 1,275,656 | 1,146,063 | 716,890 | 632,047 | 3,409,944 |
| Indian meal..... " | ..... | 5 | ..... | ..... | 126,954 |
| Bullion in bank, Dec. 31... | £9,984,000 | 12,078,000 | 14,828,416 | 13,325,886 | 14,951,550 |

These enormous quantities entered for consumption, did not affect prices nor diminish the amount of specie in bank. In January, 1837, however, ten years previously, a convulsion had been produced through high prices. We may take, from a London price current, prices of leading articles of import.—

PRICES IN LONDON FOR JANUARY—

| | 1837. | 1847. | Decrease. |
|---|---|---|---|
| | £ s. d. | £ s. d. | £ s. d. |
| Ashes, United States pots..... | 1 17 0 | 1 10 0 | 0 7 0 |
| " " pearls..... | 2 00 0 | ..... | ..... |
| Coffee, St. Domingo..... | 2 10 0 | 1 12 0 | 0 18 0 |
| " Brazil, ..... | 2 10 0 | 1 16 0 | 0 14 0 |
| Cotton, Georgia bowed..... | 0 00 9½ | 0 00 7¾ | 0 00 1¾ |
| Indigo,..... | 0 8 6 | 0 6 4 | 0 2 2 |
| Iron, Swedish..... | 14 10 0 | 12 00 0 | 2 10 0 |
| Oil, linseed..... | 1 17 0 | 1 6 0 | 0 11 0 |
| Seed, clover..... | 2 16 0 | 2 5 0 | 0 11 0 |
| Pepper, Sumatra..... | 0 00 3½ | 0 00 2¾ | 0 00 0¾ |
| Silk, China Tsatlee..... | 1 5 0 | 0 18 0 | 0 7 0 |
| Tea, Bohea..... | 0 1 4 | 0 5 0 | 0 00 11 |
| Tobacco, Kentucky fine..... | 0 00 5¾ | 0 00 5¼ | 0 00 0½ |
| Turpentine..... | 0 12 0 | 0 10 3 | 0 1 9 |
| Wool, Electoral..... | 0 6 0 | 0 3 4 | 0 2 8 |

These are sufficient to show the great difference between the general level of prices in England, in 1837 and in 1847, and to account for the fact of the large imports of foreign food not having materially disturbed the exchanges. The inflation of prices that took place in 1837, was, by the new bank charter, prevented from returning, in 1846, when specie had become so abundant. Something similar to this operation has been the case here. Fortuitous circumstances have compelled England to buy inordinate quantities of American produce, at a time when various combined causes have conspired to check enterprise and speculation, and therefore to check imports, by which means the current of the precious metals has set strongly towards the United States, and has swollen the volume of the currency here, without materially disturbing that of England; because, when there

was no unnatural rise in prices, no values sustained by borrowed capital, the efflux of the capital would not affect prices or produce revulsion.

Under the old system of finance in England, the government, in 1835, required a loan of £20,000,000 to liberate the West India negroes. It was obtained, August 3, 1835, at a rate of £86 9s. 5d. for every £100 of 3 per cent stock, including a discount of 2 per cent for prompt pay. The loan was required to be paid up by January, 1836; and, to enable this to be done, the bank made money exceedingly plenty, loaning on all descriptions of securities freely. This action of the bank on that occasion, in aid of the government, was one of the chief causes of the distress which soon followed. Under the present system, the government has, as above stated, obtained £8,000,000 at 89 per cent, without the aid of the bank, and without any material effect upon the money market.

The decline which the bullion in the Bank of England has undergone, since December 5, has been mostly for American account, circulation in Ireland, and the agricultural districts. It has been a singular feature of the distress in Ireland, that money there has been very abundant, and the deposits in the savings' and other banks unusually large. This is accounted for, to some extent, by the fact, that the action of the English government in relation to the famine, has not only aggravated the scarcity, but has, by interrupting the regular course of business, disturbed customary investments. As thus: a large portion of the land of Ireland is held on a system called "conacre," under which, the larger class of farmers cut up their old grass lands into small strips, varying from a perch to half an acre, and let them annually, at high rents, say $40 to $80 per acre, to cottiers. These burn off the stubble, and universally plant potatoes, because that root yields the greatest amount of nutriment to a given surface. Before the potatoes can be dug at harvest, the rent must be paid. At the last harvest, a panic prevailed very generally in relation to the disease in potatoes; when, therefore, the cottiers, having earned their rent by other means, came to pay, they hesitated. They naturally calculated that the potatoes, injured by disease, might not be worth the rent. At such a juncture, the government came forward with its pernicious scheme of public works; and the cottiers, retaining their rent money, took work under government, and abandoned their fields. The number so employed on the public works, was, at the close of January, 680,000, representing at least 3,000,000 souls. The abandoned potatoes were, to a considerable extent, injured by frost; but important quantities of food have subsequently been obtained from those fields. These circumstances have contributed to the demand for foreign food; and the means of paying for it have been the disbursements of the government, and the money saved by the non-payment of "conacre" rents. The abandonment of all works by the government now, will send back to the fields numbers of producers of food; but it is a problem how far the potato-planting will be resumed, and in that question lies the probable permanence of the sales of Indian corn and coarse American grains. It is, however, to be considered, that the wants of Europe, and the consequent high prices, have exhausted all old stocks of grain in Europe; and that England, even in the last few years of good harvests, wanted a considerable foreign supply. That, she cannot get from Europe, and must depend for it upon the American States. The state of affairs in Europe, is very similar to that in Great Britain; inasmuch as that the consumption of food has of late years vastly increased, and from causes very similar to those which, in Eng-

land, have caused demand to outrun supply; and therefore, to some considerable extent, the export of American farm produce must be continued.

The accounts from England down to the 3d of April, advise of an improvement in the exchanges with respect to the continent, but of a stringency in the stock market; consols, and the new loan scrip, having declined. The drain of specie for America, was that, however, from which the most apprehensions were entertained; and the April packets, including the Cambria, which had £390,000 in gold, were estimated to have had engaged £1,000,000. The state of affairs in Ireland had, however, improved. The dismissal of laborers on the public works, had taken place to a very considerable extent, without difficulty; and extensive arrivals of grain, particularly Indian corn, had, aided by fine planting weather, greatly affected prices, and the fall in grain had favorably influenced cotton, which had advanced. There was a great and continued scarcity of food in France, and the embarrassments of the Bank of France were but slightly relieved, notwithstanding that the Emperor of Russia had, by treaty, purchased of the bank 50,000,000 francs of French rentes held by it. The bullion in the Bank of France had somewhat increased, being 77,000,000 francs, including a London specie credit. The leading money markets on the continent were all much more easy. The aspect of affairs was, upon the whole, considerably improved; but it is evident that the demands for foreign food cannot be diminished between this and harvest.

The operation of various events during the past year, has contributed to influence money affairs here, in the same manner that the changed nature of the English currency has done there. The large exports of produce, bringing important sums of specie, amounting to more than $10,000,000, into the country since January, 1847, have failed to excite speculation, and that overaction of the banks, which, in former years, always attended a favorable state of the exchanges, is now not apparent. Prices have not been affected by any collateral paper influence, but have been governed by an effective demand, which, as yet, has not so raised values as to stimulate importations. Freights and produce have advanced under the urgent effective demand, and exchange has consequently fallen very low, notwithstanding the large importation of specie, and a very considerable importation of goods. As an index of the business of the Union, we annex a statement of the imports and duties at the port of New York, for four months, ending April 1st:—

IMPORTS PORT OF NEW YORK.

| | Specie. | Free goods. | Dutiable. | Total imports. | Cash duties. | |
|---|---|---|---|---|---|---|
| | | | | | 1847. | 1846. |
| December.... | $61,436 | $537,496 | $4,279,813 | $4,878,655 | $1,143,327 | $1,056,896 |
| January..... | 90,874 | 478,413 | 5,499,682 | 6,068,999 | 1,434,836 | 1,471,845 |
| February..... | 1,235,122 | 285,128 | 5,889,387 | 7,409,637 | 1,496,716 | 1,255,651 |
| March..... | 1,329,428 | 786,937 | 6,060,746 | 8,177,141 | 1,652,092 | 2,608,734 |
| Total, 1847. | $2,716,800 | $2,088,004 | $21,729,628 | $26,534,432 | $5,726,971 | $6,393,126 |
| Total, 1846. | 280,729 | 2,501,925 | 21,118,620 | 24,001,274 | ..... | ..... |
| Increase..... | $2,436,071 | ..... | $611,008 | $2,533,150 | ..... | ..... |
| Decrease..... | ..... | $413,921 | ..... | ..... | ..... | $666,155 |

In the dutiable goods there was a considerable increase, notwithstanding that seventeen packets, which last year arrived in March, and the business of which was included in the returns of that month, did not, this year, arrive until April,

owing to easterly winds. Had the vessels due, all arrived, there is no doubt but that the revenue would have exceeded last year, and the specie for March have been near $3,000,000. The average duties collected in 1847, were, it appears, 26.30 per cent of the dutiable imports, against 30.25 per cent, in 1846—a decline of about 4 per cent only in the average. Notwithstanding the fact, that the quantity of goods arrived and to be paid for, in the four months this year, was very nearly the same as for the same period last year, and the quantity of specie received, was greater by $2,436,071, yet bills have fallen to a very low point here and at New Orleans. As compared with last year, at the same date, prices are as follows:—

PRICES OF EXCHANGE.

| | NEW YORK. | | | | NEW ORLEANS. | | |
|---|---|---|---|---|---|---|---|
| | Sterling. | Francs. | Amsterdam. | London. | France. | N. Y. sight. | N.Y.60 days. |
| 1846..... | 9¼a10 | 5.27½a5.26¼ | 39¼a39⅞ | 9¼a10 | 5.26a5.30 | ¼a½ prem. | 1 a1¼ dis. |
| 1847..... | 4¼a4¾ | 5.46 a5.43¾ | 38¾a39 | 1 a2¾ | 5.52a5.57½ | ¼a¾ disc. | 2¾a2¾ dis. |
| Decline | 5¼a5¼ | 18¼a 17 | 1 a ⅛ | 8¼a7¼ | 26a 27½ | ¼a¾ | 1¾a1¼ |

This is a serious fall, amounting to less than 6 per cent average to shippers, on the exports, making that sum in favor of the importers of goods. As thus, the import of dutiable goods being, as above, $21,729,628, has been paid for in exchange averaging 5 per cent less than last year, or more than a million of dollars. As these goods paid 4 per cent less duties, and cost 5 per cent less in exchange, they come actually 9 per cent cheaper than last year to the importers. The exports of flour, wheat, corn, and corn-meal, to England, have been as follows, Sept. 1, to April 10:—

| | Quantity. | Av'ge price. | Value. | Freights. | Total. |
|---|---|---|---|---|---|
| Flour.....bbls. | 1,420,557 | $6.50 | $9,233,570 | $1,432,040 | $10,665,610 |
| Corn-meal..... | 325,127 | 4.25 | 1,381,749 | 372,180 | 1,753,929 |
| Wheat.....bush. | 1,400,942 | 1.25 | 1,751,175 | 560,376 | 2,311,551 |
| Corn..... | 8,508,176 | 88 | 7,444,645 | 3,403,270 | 10,847,924 |
| Total..... | | | | | $25,579,014 |

These four articles come to over $25,000,000; but the bills have sold at a loss of $1,200,000, being so much in favor of the importers of goods. It is observable that the rates of bills in New Orleans on New York, are very low, and show a high interest paid for money. There is a difference of 2 per cent between a sight bill, and a 60 days' bill, being 12 per cent per annum. Last year, the difference was but ¼ per cent. This great demand for money at that point, is no doubt attributable to the vast receipts and value of produce.

| | 1846. | | 1847. | |
|---|---|---|---|---|
| | Quantity. | Value. | Quantity. | Value. |
| Bacon arrived....hhds. and casks | 5,438 | $244,710 | 8,119 | $487,140 |
| Corn.....bbls. and kegs | 515,130 | 592,399 | 1,399,159 | 3,264,704 |
| Flour.....bbls. | 561,679 | 2,527,595 | 1,025,073 | 5,637,901 |
| Lard.....tierces and bbls. | 76,210 | 1,219,360 | 91,945 | 2,298,825 |
| Lard.....kegs | 236,446 | 709,338 | 228,969 | 1,030,360 |
| Pork.....bbls. | 240,365 | 1,922,920 | 229,951 | 3,219,314 |
| Wheat.....sacks | 54,385 | 108,770 | 170,121 | 1,020,726 |
| Total..... | | $7,325,092 | | $16,957,970 |

Here is an increase of $9,000,000, in the value of pork and grain received at New Orleans, in addition to all the other large demands for money, including the

great operations of the federal government at that point, on account of the war The larger proportion of the produce sold at New Orleans, of the descriptions enumerated, is for account of the Western States, from which, in the course of business generally, a demand springs up in New Orleans, for eastern and northern bills, to pay the indebtedness usually accruing against the West in eastern cities, on account of goods purchased. This year the demand seems languid, or far less than the supply. It is, however, the case, that since the diminution of banks in the great valley of the Mississippi, money has been by no means abundant; and to supply a sound currency, no more favorable year can occur than this, in which sales of the proceeds of western industry are so extensive. It is by such means that "gold" must "flow up the Mississippi." Illinois, Wisconsin, Iowa, Missouri, Mississippi, Alabama, Louisiana, and Arkansas, are comparatively without banks, where, collectively, $77,000,000 of capital, once employed in banking, has ceased to exist. Of that amount, near $40,000,000 was actually money borrowed in London, and lost. Of the remainder, a large portion was obtained in eastern cities, and nearly all is worthless.

The natural growth of the commerce and internal business of the country requires *some* money, and this is being supplied by the operations of commerce, as indicated in the low rates of exchange. When a country requires money, it flows in as a better remittance than perishable goods. As, however, the channels of circulation fill, a demand for goods springs up, and stays the importation of the precious metals. A healthy and increasing business must then result. To supply this demand for money, commerce must bring the material, and the mint convert it into a desirable shape. In another part of this number of the Merchants' Magazine, will be found the operations of the United States mint and branches, for a series of years.* Since the 1st of January, however, the operations have been on a much more extensive scale, and the coinage at Philadelphia, for the month of March alone, approximates to that for the whole year 1846. This seems to be effected by the successive transfers by the Treasury Department, from New York to the mint. The law regulating the mintage, limits the amount that may be deposited at one time, to $1,000,000. We would call attention also to the important increase in the deposits of United States gold for coinage. These have, in a few years, doubled, and are now over $1,000,000 per annum. In view of the supply of the precious metals, the war or peace with Mexico may be productive of important results. Should peace be effected on such a basis as to afford security to property, very many prolific mines in that country, which are now not worked by reason of the insecurity of property, must make important additions to the quantities of gold and silver; perhaps to an extent equal to that which the first discovery of those mines made in Europe. The state of military anarchy which has so long paralyzed industry in that country, has had an important influence upon the mining products, which require but emancipation from misrule to assert their value.

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* See page 506 of the present number, for the coinage of 1846; and note at the bottom of same page, referring to previous years.

# COMMERCIAL REGULATIONS.

## UNITED STATES TARIFF REGULATIONS FOR MEXICAN PORTS.

TARIFF OF DUTIES ON IMPORTS AND TONNAGE, AND REGULATIONS FOR COLLECTING THE SAME IN SUCH OF THE PORTS OF MEXICO AS MAY BE NOW OR HEREAFTER IN OUR MILITARY POSSESSION BY CONQUEST, PREPARED BY THE SECRETARY OF THE TREASURY, AND ACCOMPANYING HIS REPORT TO THE PRESIDENT OF THE UNITED STATES, DATED 30TH MARCH, 1847.

ALL ports or places in Mexico, that now are, or hereafter may be, in the possession of the army or navy of the United States, upon the Gulfs of Mexico or California, or the Pacific Ocean, or upon any of the navigable rivers or waters connected with any or either of the said gulfs or ocean, are opened to our commerce, and to that also of all other nations, in all vessels, except Mexican, subject to the regulations and restrictions herein prescribed:—

1. Within twenty-four hours after the arrival of any vessel, the master must produce to the military or naval officer in command of the port a manifest of the cargo of such vessel, specifying the marks, numbers, and description of packages, by whom shipped, and to whom consigned; which manifest, if the vessel be from a port in the United States, shall be certified by the collector of the port from whence the shipment is made; if from any other port, by the consul or commercial agent of the United States, if any there be; otherwise, by a consul of any nation at peace with the United States. If no such manifest be produced, the vessel shall be subject to a penalty of *one dollar* per ton, registry measurement, in addition to the tonnage duty hereinafter prescribed.

2. There shall be paid by the master of every vessel arriving at the ports or places aforesaid, a tonnage duty of one dollar per ton, registry measurement, in lieu of all other port charges; the registry of the vessel to be deposited with the consul of the nation to which such vessel may belong, if any there be; otherwise, with the commandant of the port, until the master shall have complied with all the regulations herein prescribed.

3. Vessels arriving at any of the ports or places aforesaid, in the possession of our military or naval forces, will be required to unlade their entire cargo at such port or place; but no vessel, except those registered in the United States, and owned wholly by a citizen or citizens of the United States, will be permitted to transport coastwise any goods, wares, or merchandise, the growth, produce, or manufacture of one port, State, or Department of Mexico, or of any other country, into another port, State, or Department, the coastwise cargo being subject to the same duties as in other cases, and any violation will subject the vessel to seizure and confiscation.

4. Upon all goods, wares, and merchandise, imported into any of the aforesaid ports or places of Mexico, in the possession of our military or naval forces, from other ports aforesaid in Mexico, or from ports or places in the United States or foreign countries, of the growth, produce, or manufacture of Mexico, or of the United States, or of foreign countries, there shall be levied, collected, and paid in cash the following rates of duty; that is to say:—

On all manufactures of cotton or of cotton mixed with any other material, except wool, worsted, or silk, in the piece, (excepting shawls and handkerchiefs,) not exceeding thirty-six inches wide, five cents per running yard, (and for every additional inch in width, one-fourth of one cent per running yard additional duty.)

On cotton trimming laces, cotton insertings and trimmings, tapes, cords, galloons, tassels, and all other manufactures of cotton, or of cotton mixed with any other material, except wool, worsted, or silk, not otherwise specially mentioned and provided for, forty per cent ad valorem.

On cotton shawls or rebosas, thirty per cent ad valorem.

On cotton handkerchiefs, not over one yard square, six cents each. (If over that size, one-fourth of one cent per running yard, each additional inch in width.)

On cotton yarn and twist, eight cents per pound.

On cotton thread and balls, twenty-five cents per pound.

On cotton thread on spools, six cents per dozen spools.

On all manufactures of silk, mixed with any other material, in the piece or otherwise, including every article of which silk is a component material, not otherwise specially enumerated; also, including sewing silk, silk hosiery, and silk millinery, except bonnets and caps, three dollars per pound.

On all manufactures of hemp, grass, and flax, in the piece, not otherwise specially enumerated and provided for, and not exceeding thirty-six inches wide, six cents per running yard, (and for every additional inch in width, one-fourth of one cent per running yard additional duty.)

On cables and cordage, five cents per pound.

On twine and packthread, four cents per pound.

On linen thread, twenty-five cents per pound.

On flax, hemp, or grass bags, not exceeding one yard square in size, twelve and one-half cents each. (If exceeding that size, twelve and one-half cents per square yard of material.)

On cotton bagging, gunny bagging, and all other bagging and matting of all kinds, five cents per running yard.

On linen handkerchiefs, not over one yard square, twelve and one-half cents each. (If over that size, one-half cent per running yard, for each additional inch in width.)

On hemp, flax, Sisal, or India grass, coir or jute, India, Saun, and Manilla, one cent per pound.

On all manufactures of wool or worsted, or of wool and worsted combined, in the piece, not otherwise specially enumerated and provided for, and not exceeding thirty-six inches in width, fifty cents per running yard. (And for every additional inch in width, one and one-half cents per running yard additional duty.)

On shawls of wool or worsted, thirty per cent ad valorem.

On blankets and counterpanes of wool, or of wool and cotton mixed, not exceeding six feet square, one dollar each. If over six feet square, and not exceeding ten feet square, two dollars each. If exceeding ten feet, prohibited, to prevent frauds.

On flannels, baizes, and bockings, not exceeding sixty inches in width, twenty cents per running yard.

On oil-cloth and oil floor-cloth, not exceeding seventy-two inches in width, fifty cents per running yard.

On carpets and carpeting, not exceeding thirty-six inches in width, forty cents per running yard.

On all manufactures of goats' hair or mohair, in the piece, not exceeding thirty-six inches in width, fifteen cents per running yard. (And for every additional inch in width, one-half cent per running yard additional duty.)

On pig iron, one-half cent per pound.

On bar iron, rolled or hammered, and on old or scrap-iron, one and one-half cents per pound.

On nails, spikes, tacks, brads, and sprigs, four cents per pound.

On sheet, rod, hoop, and all other descriptions of rolled and hammered iron, and on cables, anchors, and anvils, four cents per pound.

On castings of all descriptions, not otherwise enumerated, three cents per pound.

On cutlery, say pocket-knives, scissors, razors, and table cutlery, and on all other manufactures of iron and steel, except those prohibited, (see article fifth,) and including iron and steel wire, and cap and bonnet wire, forty per cent ad valorem.

On copper, in pigs or bars, old copper, sheathing copper, brass, in pigs or bars, old brass, zinc or spelter, in pigs, bars, or sheets, and on steel, in bars, not over one inch square, intended only for mining purposes, two cents per pound.

On tin, in sheets, pigs, or bars, four cents per pound.

On all manufactures of copper, brass, tin, zinc or spelter, pewter, and German silver, except such as are prohibited by article fifth, thirty per cent ad valorem.

On brown sugar, three cents per pound.

On sugar-candy, ten cents per pound.

On syrup of sugar, two cents per pound.

On all other descriptions of sugar, five cents per pound.

On molasses, five cents per gallon.

On fish, pickled or salted, in barrels, one dollar per barrel.

Do. if in half-barrels, sixty-two and a half cents each.

Do. if in quarter-barrels or kegs, forty cents each.

Do. smoked or salted, dried codfish, and on beef and pork, salted or pickled, in barrels or half-barrels, two cents per pound.

On smoked and jerked beef, one cent per pound.

On smoked hams and bacon, six and one-quarter cents per pound.

On tongues, ten cents per pound.

On butter, six cents per pound.

On lard and cheese, four cents per pound.

On rice, two cents per pound.

On Indian meal, one-half cent per pound.

On Indian corn, ten cents per bushel.

On wheat, rye, oats, and all other grain, forty cents per bushel.

On potatoes, twenty cents per bushel.

On rye-meal and oat-meal, one cent per pound.

On wheat, flour, in barrels or half-barrels, two dollars per barrel of ninety-six pounds. (If flour be imported in any other description of package than in barrels or half-barrels, or if imported in bags or sacks, the duty shall be one cent per pound.)

On apples, one dollar per barrel.

On biscuit and ship-bread, three cents per pound.

On tobacco, stem or leaf, four cts. per pound.

On segars, five dollars per thousand.
On cigaritos or paper segars, three dollars per thousand.
On snuff, fifty cents per pound.
On chewing tobacco and smoking tobacco, ten cents per pound.
On hewn timber, boards, plank or scantling, ten dollars per thousand feet.
On shingles, two dollars per thousand.
On laths, fifty cents per thousand.
On pitch, tar, rosin, and turpentine, one dollar and fifty cents per barrel.
On printed books, bound, half-bound, or in sheets or pamphlets, fifty cents per pound.
On blank books, twenty cents per pound.
On writing paper of all kinds, twelve and one-half cents per pound.
On sand paper, seven cents per pound.
On brown or straw wrapping paper, three cents per pound.
On playing cards, twenty-five cents per pack.
On window-glass, ten cents per pound.
On looking-glasses, looking-glass plates, on glassware of all kinds, except those specially mentioned otherwise, and on China-ware, stoneware, and earthenware, forty per cent ad valorem.
On demijohns, three dollars per dozen.
On black or green glass bottles, not exceeding the capacity of one quart each, three dollars per gross; if exceeding that capacity, five dollars per gross.
On brandy, if imported in pipes of not exceeding one hundred and twenty gallons each, sixty dollars per pipe; if in half-pipes of not exceeding sixty gallons each, thirty dollars per half-pipe.
On brandy, if in quarter-casks of not exceeding thirty-two gallons each, sixteen dollars a quarter-cask; if in Indian barrels or octavos of not exceeding twenty gallons each, ten dollars per package.
On whiskey, three cents per pound.
On all other spirits, not otherwise specially mentioned, six and one-quarter cents per pound.
On cordials, in bottles, of not exceeding two and one-half gallons to the dozen, four dollars per dozen, which includes the duty on bottles.
On brandy and other distilled spirits, in bottles, of not exceeding two and one-half gallons to the dozen, three dollars per dozen, which includes the duty on bottles.
On gin, in square bottles, (in cases,) of not exceeding three gallons to the dozen, four dollars per dozen, which includes the duty on bottles.
On wines of every description, in casks or bottles, twenty-five cents per gallon, and twenty-five per cent ad valorem: *Provided always*, That wine, in quart bottles or in those of smaller capacity, shall always be considered as containing two and one-half gallons to the dozen bottles, and shall pay duty accordingly; if in bottles of larger capacity, or in demijohns, the duty shall be estimated on the quantity contained therein, at the rates above named; the bottles containing the wine, in all cases, paying an additional duty, if quarts, or smaller, of three dollars per gross; if of larger size, five dollars per gross; and demijohns, three dollars per dozen.
On brandy and other spirits, in demijohns, one dollar per gallon. The same rules to be applied to brandy and other spirits, when imported in demijohns, or in bottles of greater capacity than two and one-half gallons to the dozen, as are made for wines.
On vinegar, fifteen cents per gallon.
On beer, ale, porter, and cider, in quart bottles, one dollar per dozen, which includes the duty on bottles. In pint bottles, fifty cents per dozen, which includes the duty on bottles. In casks, or any other description of package other than above named, twenty-five cents per gallon. In all cases of liquids, imported in casks or barrels, the duty shall be levied on the capacity of the cask or barrel, without regard to any deficiency of its contents.
On paints of all descriptions, and painter's colors, dry or ground in oil, (except water-colors in boxes,) and on varnish, four cents per pound.
On tortoise-shell, one dollar per pound.
On maccaroni and vermicelli, and on almonds and all other nuts, four cents per pound.
On sardines and anchovies, twenty-five cents per pound.
On preserved meats and fish, in cans or firkins, twelve and one-half cents per pound.
On sausages, ten cents per pound.
On coffee, currants, figs, prunes, cocoa, raisins, and dates, three cents per pound.
On ginger, cinnamon, cassia, and cloves, fifty cents per pound.
On teas, forty cents per pound.
On pimento and black pepper, eight cents per pound.
On salt, fifteen cents per bushel.
On anthracite and bituminous coal, and on charcoal, one dollar per ton.
On whale, sperm, linseed, and olive oils, and on all other oils, except perfumery, five cents per pound.
On wax and sperm candles, twelve and one-half cents per pound.
On tallow candles, six and one-quarter cents per pound.
On beeswax of all kinds, twelve and one-half cents per pound.
On tapers, fifteen cents per pound.

On spirits of turpentine, twenty-five cents per gallon.
On soap of all kinds, except perfumed, five cents per pound.
On gold watches, ten dollars each.
On silver watches, three dollars each.
On wearing apparel, comprising all articles of clothing worn on the person, except those specially enumerated and provided for; on millinery articles, say caps, collars, cuffs, braids, and other ornaments for the hair, curls, ringlets, and all similar articles, (except of silk,) forty per cent ad valorem.
On hats, for men and boys, of straw, fur, or silk, one dollar each.
On boots and bootees, for men, women, and children, of whatever material composed, one dollar per pair.
On shoes and slippers, for men, women, and children, of whatever material composed, thirty cents per pair.
On bonnets, for women and children, of all descriptions, except silk, and on silk caps for women and children, one dollar each.
On silk bonnets, for women and children, two dollars each.
On silk hosiery, three dollars per pound.
On hosiery, say caps, gloves, cuffs, mits, socks, stockings, shirts, and drawers, of whatever material composed, except silk, thirty per cent ad valorem.
On caps, for men and boys, made of fur, leather, cloth, or straw, and on leather shirts and drawers, fifty cents each.
On umbrellas, parasols, and sun-shades, composed of silk, one dollar each; if of any other material, fifty cents each.
On epaulets and wings, one dollar per pair.
On coaches, carriages, harness of all kinds, saddlery, household furniture, musical instruments, artificial flowers, fancy boxes of all kinds, pocket-books, purses, bead bags, perfumery, perfumed soap, cosmetics of all kinds, engravings, paintings, beads, rosaries, alabaster and spar ornaments, toys, paper hangings, opium, camphor, forty per cent ad valorem.
On raw cotton, two cents per pound.
And on each and every article, not specially enumerated and provided for herein, thirty per cent ad valorem.

5. The following goods, wares, and merchandise, are to be considered contraband of war, and the importation thereof is strictly prohibited under a penalty of seizure and confiscation of the goods, and of the vessel in which said goods may be found:—

Gunpowder; saltpetre.
Gun cotton.
Lead.
Sulphur and brimstone.
Cannon, swords, dirks, lances, spears, bowie knives, rifles, muskets, side-arms, and fire-arms, and all other arms, implements, instruments, and munitions of war.

And the importation of the following goods is prohibited under penalty of forfeiture:—

Steel, in bars, plates, sheets, or other form, except in bars less than one inch square, intended for mining purposes.

6. When the duties are imposed by weight, no allowance will be made for tare or draft; in that case, the duty will be computed on the gross weight, including the weight of the cask, barrel, box, bag, or other package, and no allowance will be made for any deficiency, leakage, or breakage, or damage sustained on the voyage of importation or otherwise. Whenever a doubt exists as to the rate of duty to be collected on any article, the highest rates which would be charged upon articles or fabrics which it resembles in character, material, texture, or the use to which it may be applied, will be taken.

7. The consignee of goods, wares, or merchandise, imported under these regulations, must produce to the United States' commanding officer, naval or military, at the port, as the case may be, an entry, invoice, and bill of lading thereof; in the entry, the marks, numbers, description, and contents of packages, and the quantity and market value thereof, and of each package, must be distinctly stated. The invoice must describe the goods, and the weight, measure, or other quantity in each package, and the value thereof in the principal markets of the country from whence the importation is made, together with all charges, until laden on board at the port or place of shipment; which value shall be verified by the oath of the owner or purchaser, and shall be of the form hereafter prescribed, (see Form L,) which oath, if the goods are imported from the United States, shall be administered by the collector of the port from whence the importation is made; if from a foreign port or a port in Mexico, by a consul or commercial agent of the United States, if any there be; otherwise, by a consul of any nation at peace with the United States.

Invoices must be made out in the currency of the country from whence imported, the value whereof, if not fixed by the laws of the United States, must be stated in a certificate of Form IL, to be granted by a consul of the United States, if any there be; otherwise, by the certificate of two or more merchants residing at the port of shipment.

Goods fraudulently invoiced, and all goods landed, or attempted to be landed, without permit, shall be confiscated.

The commandant of the port will receive all duties, and pay over the same the day succeeding, to the paymaster or purser, if any there be at the port, and if not, then to the highest officer present, of the quartermaster or commissary's department, and if none such be present, then to such other officer as may be designated by the commandant, who may also detail such non-commissioned officers, sailors, or marines, or other persons, as may be necessary to aid in carrying into effect these regulations.

8. All goods, wares, and merchandise, upon which the duties have not been paid within thirty days after the arrival of the vessel, will be taken possession of by the commandant, at the expense and risk of the owner or consignee thereof, and will be sold at public auction, under the direction of said commandant, five days' public notice being first given in a public newspaper, if any there be; otherwise, by the public notice usually given at such port. From the proceeds of such sale, the duties and expenses will be deducted, and the residue thereof, if applied for within ten days, will be paid to the owner or consignee of the goods so sold, otherwise said moneys will accrue to the government of the United States.

9. All goods, wares, and merchandise, subject to confiscation, will be sold in like manner within ten days after the seizure.

10. Upon goods, wares, or merchandise, the invoices of which are not verified in the manner prescribed in the 7th article of these regulations, there shall be levied, collected, and paid, on the importation thereof, besides the duties herein prescribed, an addition thereto of one-fourth of the amount of the said duties.

11. If the port, or place of original destination in Mexico, named in the manifest, be not in possession of the United States' forces, the vessel may enter at any other port or place in Mexico in such possession.

12. If upon the unlading of the cargo, any package or article, specified in the manifest, shall be found wanting, the vessel shall be subject to an additional penalty of one dollar per ton; and if any goods, wares, or merchandise, shall be found on board, and not included in the manifest, the same shall be forfeited to the use of the United States; and if the value thereof shall exceed the sum of one thousand dollars, the vessel shall be seized and confiscated.

13. The following goods, wares, and merchandise, are exempted from duty, to wit: machinery and machines, to be used for mining purposes in the gold or silver mines of Mexico.

Quicksilver.

All articles, the sole property of the United States' army or navy, in American vessels, owned, chartered, or freighted by the government of the United States.

Whenever any goods are imported by sutlers, and the duties paid by them, as is required by these regulations, and when the sutler shall first prove to the satisfaction of the commandant of the post, that said sutler has actually sold any of said identical goods, so imported by him, to any officer, soldier, sailor, or marine, for their own actual individual use and consumption, and not as merchandise or for re-sale, then and in that case the duties so actually paid on said goods so sold to any officer, soldier, sailor, or marine, as aforesaid, shall be refunded to said sutlers; but before refunding the moneys so collected, it shall be the duty of the council of administration which, under the direction of the commandant of the post, fixes the price of sutlers' goods, in determining the price of any of said goods so sold, as aforesaid, to deduct the duty so paid from the price, with a view to avoid imposing any of the burden of the duties herein prescribed upon the army or navy of the Union; and all officers' individual stores, introduced for their own actual use, and equipments required by law, are exempt from duties.

14. Upon the arrival of any vessel within the ports aforesaid, a sentinel or sentinels should be at once placed on board to prevent frauds upon the revenue. When the tonnage duty has been paid, passengers can be permitted to land with their baggage, provided no dutiable or prohibited articles are found therein. There will be required from the consignee of any goods imported in each vessel, an entry as per Form III., to be deposited with the commandant of the port; also an invoice verified as hereinbefore required.

The commandant of the port will direct the paymaster, purser, quartermaster, assistant-quartermaster, commissary, assistant-commissary, or other disbursing officer of the United States, who may be serving at such port or place, to estimate the duties, and upon the payment of the same, in cash, to the commandant, he will grant a permit of Form IV., which the paymaster, purser, or other officer, will countersign, who will also keep a record of the amount received, to be compared with a similar record to be kept by the commandant who receives the duties.

When the paymaster, purser, or other officer, is unable to ascertain the amount of duties until the goods are weighed, guaged, or measured, the commandant will take a deposit

equal at least to the estimated duties; and any amount which, when the duties are correctly ascertained, may appear to be overpaid, he will return to the importer.

15. Whenever the commandant, paymaster, purser, or other officer, has reason to suspect that any goods are fraudulently invoiced, he shall institute such an examination as, in his opinion, may be proper and necessary.

All goods, which may remain on board at the expiration of ten days from the arrival of the vessel, should be warehoused on shore under the directions of the commandant, and, if the duties are not paid at the expiration of thirty days after such arrival, they must be sold under the regulations prescribed herein.

The currencies and weights, guage, and measures, of various countries, with their equivalent United States' standard, will be found in the table annexed.*

The commandant will require the paymaster, purser, or other officer, to transmit to the Secretary of War or Navy, on the first of each month, a statement as per Form V., showing the amounts received by him, the vessel in which imported, and by whom paid; also, a weekly statement of the moneys received, and a statement of the goods sold at auction as per Form VI.

16. All government monopolies for revenue, or income and prohibitions, except as herein mentioned, of imports into any of the said ports of Mexico, and all duties on exports, or prohibitions of exports, and all interior transit duties, and all auction and retail taxes or duties on imports on the sale thereof, any law, usage, or custom of Mexico to the contrary notwithstanding, are hereby annulled and abolished.

17. The commandant will use and occupy, for the transaction of business and for the storage of imports, all public buildings in the ports aforesaid; and if such buildings shall not be found sufficient for the purposes indicated, he will require the Mexican authorities to furnish him with additional buildings, free of charge to the United States.

18. Prior to the departure of vessels from the ports aforesaid, the paymaster, purser, or other officer, as the case may be, will require the master to produce to him a manifest of the outward cargo of such vessel, specifying the marks, numbers, description, and contents of packages, and the value thereof, as per Form VII., a copy of which, signed by the said paymaster, purser, or other officer, and countersigned by the commandant, will be granted to the master, together with a clearance, to be endorsed thereon, as per Form VIII. No clearance will be granted to any vessel of the United States to any other port or place in Mexico, except such port or place be in the possession of the United States.

The exportation of goods from any port or place in Mexico, in our possession, the importation of which is prohibited by these instructions, is also strictly prohibited.

19. These regulations apply at once to Matamoras, Tampico, St. Francisco, and Monterey, (in California,) &c., &c., and such other ports or places as may, from time to time, come into our possession, as soon as possession is taken.

All goods brought into the United States from any of the said ports or places in Mexico, will, of course, be chargeable with duty in the United States; but no drawback will be allowed on exports from any of the said Mexican ports or places.

Moneys to be collected under these instructions, to be paid over to the paymaster, purser, or other officer, to be retained by him, under the directions of the commandant, as a military contribution, subject to the order of the War and Navy Departments; but no fees, charges, commission, or compensation of any kind, to be paid or allowed for the performance of any of the duties prescribed by these regulations.

20. All the duties directed in these regulations to be performed by the commandant of any post or place in our military possession, may be devolved by such commandant on any subordinate officer to be designated by him, who shall perform the same, subject to the supervision and control of such commandant. The apportionment and distribution of the duties to be performed by the officers of the army or navy should be made with the approval of the President of the United States, by the Secretaries of War and of the Navy.

R. J. Walker, Secretary of the Treasury.

*Treasury Department*, March 30, 1847.

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Form I.

I, *John Brown*, do solemnly, sincerely, and truly *swear* or *affirm*, that I am the *owner* or *purchaser* of the goods, wares, and merchandise, described in the *within* or *annexed* invoice; that the fair market value of said goods, in the principal markets of the country

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* See "Journal of Banking, Currency, and Finance," in the present number of this Magazine, pp. 507, 508.

of production thereof, at the present time, including all costs for bleaching, dyeing, pressing, and packing, and for inland transportation, and all other charges to the place of shipment, amounting to *three thousand Bremen rix dollars*, is correctly stated in said invoice. And I further swear, that the quantity is truly stated therein. So help me God.

[L. S.] (Signed,) JOHN BROWN.

Sworn to, before me, this 22d March, in the year 1847, at the United States' Consulate at *Bremen*. A. B., Consul.

FORM II.

I hereby testify that the value of the *franc of Switzerland*, in which currency the *annexed* or *within* invoice is made out, is equal to *twenty-seven* cents United States' currency.

[L. S.] Given under my hand and seal of office, at the United States' Consulate at *Basle*, this 22d March, in the year 1847. A. B., Consul.

FORM III.

*Entry of merchandise imported by John Brown, in the ship Fosca Helena from Bremen.*

| Marks. | Nos. | Packages and contents. | Quantity. | Value at specific rates. | Value at 40 per cent. | Value at 30 per cent. | Value at 20 per cent. | Val. at compound duties. | Total. |
|---|---|---|---|---|---|---|---|---|---|
| J. D. | 1 to 14 | 14 pipes brandy. | 1,400 galls. | $1,400 | | | | | $1,400 |

Duty, 14 pipes at $60, $840.

(Signed,) JOHN BROWN.

TAMPICO, March 22, 1847.

FORM IV.

John Brown having paid the duties, amounting to $840, on *J. D.* 1 *to* 14, *fourteen pipes brandy*, imported by him, in the ship Fosca Helena, from Bremen, permission is hereby given to land the same.

C. D., Paymaster,
A. B., Commandant.

TAMPICO, March 22, 1847.

FORM V.

*Statement of revenue collected at the port of Tampico, during the month ending* 31*st March*, 1847.

| Date of arrival. | Vessels' names. | Where from. | Consignees. | Value of imports. | Duty paid. | Penalties paid. | Proceeds of goods confiscated. | Proceeds of goods sold for duties. | Total. |
|---|---|---|---|---|---|---|---|---|---|
| 1847. | Ship | | | | | | | | |
| Mar. 23. | Fosca Helena | Bremen | John Brown | $1,400 | $840 | | | | $840 |
| " | " | " | Tonnage Duty | | 130 | | | | 130 |
| " | " | " | Tonnage penalty | | | $130 | | | 130 |
| " | " | " | Confiscated | 600 | | | $600 | | 600 |
| " | " | " | Sold for duties | 1,000 | 400 | | | $600 | 600 |
| | | | | | | | | | $2,300 |

(Signed,) C. D., Paymaster.
(Countersigned,) A. B., Commandant.

FORM VI.

*Statement of goods sold at the port of Tampico during the month ending 31st March, 1847.*

| Date of arrival. | Name of vessel. | Where from. | Consignee. | Gross sales. | Duty. | Other charges. | Nett proceeds. |
|---|---|---|---|---|---|---|---|
| 1847. | | | | | | | 575 |
| M'ch 23, | Ship Fosca Helena | Bremen | Unknown | 1,000 | 400 | 25 | 560 |
| Do. | Do. | Do. | Confiscated | 600 | | 40 | |
| | | | | | | | 1,125 |

(Signed,) C. D., Paymaster.
(Countersigned,) A. B., Commandant.

FORM VII.

*Manifest of the cargo of the ship Fosca Helena, which was laden on board at the port of Tampico, and bound for Bremen.*

| Marks. | Nos. | Descrip. of pack. and contents. | Quantity. | Value. | Ship'rs name. | Consign'e name. |
|---|---|---|---|---|---|---|
| | | | | | | |

TAMPICO, March 25, 1847.

FORM VIII.

We certify that the master of the ship Fosca Helena, has deposited a manifest of the cargo of said vessel, with the United States' authorities at this port, of which the within is a true copy.

Permission is hereby granted for said vessel to sail for the port of Bremen.

Dated at TAMPICO, March 25th, 1847.

C. D., Paymaster.
(Countersigned,) A. B., Commandant.

## PASSENGERS IN MERCHANT VESSELS.

TREASURY CIRCULAR TO COLLECTORS AND OTHER OFFICERS OF THE CUSTOMS, IN REGARD TO AN ACT OF CONGRESS TO REGULATE THE CARRIAGE OF PASSENGERS IN MERCHANT VESSELS.

*Treasury Department*, March 17, 1847.

The particular attention of the officers of the customs is called to the provisions of an act, entitled "An Act to Regulate the Carriage of Passengers in Merchant Vessels," approved 22d February, 1847; and also to the act to amend the aforesaid act, approved 2d March, 1847.

It will be perceived that, by the amendatory act of the 22d instant, the regulations prescribed in the law of the 22d February last, take effect and go into operation from and after the 31st day of May next, in regard to all vessels arriving from ports on this side of the Capes of Good Hope and Horn, and in regard to vessels arriving from places beyond said capes, on and after the 30th day of October next ensuing. The second section of this act, also repeals so much of the act of February last, "as authorizes shippers to estimate two children of eight years of age and under as one passenger in the assignment of room" in the vessel.

It is not conceived that the provisions of the aforesaid acts repeal, or conflict with those of the act "Regulating Passenger Ships and Vessels," approved 2d March, 1819. Hence the limitation of the number of passengers to two for every five tons of the vessel, according to custom-house measurement; also, the regulations in regard to the requisite supply of water, provisions, &c., and the penalties prescribed, are still in full operation.

It is strictly enjoined upon the officers of the customs to have all vessels about to depart for foreign ports, or arriving therefrom with passengers, carefully examined, to see that the number of passengers does not exceed the limit fixed by law, and that the space prescribed in the first section of the act of 22d February last, for the accommodation of each passen-

ger, has been allotted; and also to ascertain that due compliance is had with the provisions of the third section, regulating the construction and dimensions of the berths. The number of tiers of berths is limited by the act to two, with an interval between the floor and the deck or platform, of at least six inches. Each berth is required to be "at least six feet in length, and at least eighteen inches in width, for each passenger." A separate berth of these dimensions must be provided for each passenger, and it cannot be permitted to increase said dimensions with a view to accommodate more than one person, as the law clearly contemplates each berth to be assigned to a single passenger. Besides, it is to be distinctly understood, that the berths are not to interfere or encroach upon the space allotted by the first section of the act to each passenger, which is to be of the prescribed number of clear superficial feet of deck, according to the circumstances mentioned in the law.

Children of eight years of age, and under, are each to be considered and computed a single passenger.

The penalties imposed by the 1st, 2d, and 3d sections of the act, must be rigidly enforced in all cases of a violation of the same.

R. J. WALKER, Secretary of the Treasury.

## DEFICIENCY, DAMAGE, LEAKAGE, AND BREAKAGE.

The following circular to the collectors and other officers of customs, from the United States Treasury Department, relative to allowances for "deficiency, damage, leakage, and breakage," is published for the information of our importing merchants:—

TREASURY DEPARTMENT, *March* 24, 1847.

The attention of the department having been specially called to the subject of allowances for *deficiency, damage, leakage,* and *breakage,* under existing laws, and particularly in reference to the provisions of the 58th and 59th sections of the act of 2d March, 1799, it is decided that in all cases where allowances are claimed under said sections, or either of them, the appraisers or other proper officers shall first ascertain whether any deficiency, damage, leakage, or breakage has occurred during the voyage of importation, by stress of weather, or other accident at sea; and if so, and the actual leakage, deficiency, or breakage, cannot be otherwise ascertained, then to make the allowance, as the case may be, for draft, tare, leakage, or breakage, to the extent authorized by said sections; but if said damage, deficiency, leakage, or breakage, so occurring as before mentioned, shall be found by said appraisers or other officers, to be less than the amount authorized by the said sections, then the allowance shall only be for the actual damage, deficiency, leakage, or breakage; and if the amount be ascertained to be actually greater than the amount allowed in said sections, the actual damage, deficiency, leakage, or breakage, shall still be allowed, subject to the limitations and restrictions imposed by former circulars.

It must be remembered that draft can be allowed only on articles imported in bulk, and tare on articles imported in casks, barrels, bags, boxes, or other packages, and leakage or breakage in the case of liquors; but when there is an allowance for tare, draft, leakage, or breakage, it must be confined to a separate allowance for one of them, and cannot be extended to two or more.

Under the 58th section, the allowances for draft or tare are only permitted on "*articles subject to duty by* WEIGHT," and under the 59th section, the allowance for leakage and breakage is confined to liquors "*subject to duty by the* GALLON;" and there being no duties imposed by the act approved 30th July, 1846, either by weight or gallon, it is an extremely liberal construction to allow, in any case, any operation whatever to those sections, even to the limited extent permitted by these instructions.

R. J. WALKER, *Secretary of the Treasury.*

## REGULATIONS OF THE PROVINCE OF MACAO.

In the Merchants' Magazine for February, 1847, we published the new harbor regulations for the port of Macao, China, which went into operation the 7th of May, 1846. We are now indebted to Joao Maria Ferreira do Amaral, for an additional order of the Governor of the Province of Macao, Timor, and Solor, which we here annex:—

The Governor of the Province of Macao, Timor, and Solor, in council, determines as follows:—

Considering that the duty of five mace per ton, which the vessels anchored in the Typa have paid, is excessive, it is judged proper to enact as follows:—

1. Native and foreign vessels, which heretofore were obliged to pay five mace per ton in the anchorage of Typa, shall from this date pay one mace per ton.

2. This duty so reduced, shall be paid only by vessels that remain more than six days in the Typa.

3. This anchorage duty shall be sufficient for one year, to be reckoned from the date in which the vessels anchor for the first time in the harbor.

4. Thus, as by the preceding article, vessels which have once paid tonnage dues, may enter and depart freely for the space of a year; in the same manner, vessels, which within one year enter and leave the harbor oftener than once, shall be obliged to pay duty for that year, when the sum of the days they have remained at anchor shall exceed six.

5. No tonnage dues shall be paid by—

§ 1. Vessels, whether native or foreign, not exceeding one hundred tons.

§ 2. Ships that have paid in the river of Macao, for the space of a year from the time they anchored in the first port.

§ 3. Vessels having a cargo entirely of rice.

§ 4. Vessels that enter, having suffered great damage, for the whole time they are employed in repairs.

§ 5. Steam-vessels employed in conveying passengers between Hongkong, Canton, and Macao.

The authorities, to whom the cognizance of this belongs, have so judged and decreed.

JOAO MARIA FERREIRA DO AMARAL.

*Macao*, 30th July, 1846.

# JOURNAL OF BANKING, CURRENCY AND FINANCE.

## COINAGE OF THE UNITED STATES' MINT AND BRANCHES.

WE are indebted to the Hon. B. B. French, Clerk of the House of Representatives, for a copy of the Annual Report of the Director of the Mint at Philadelphia, and the Branch Mints, for 1846, transmitted by the President of the United States to Congress, on the 4th February, 1847. It shows the operations of that institution for 1846, and for former years. From this Report, it appears that the coinage at the principal mint amounted to $3,623,443; comprising $2,234,655 in gold, $1,347,580 in silver, and $41,208 in copper coins, and composed of 7,447,335 pieces. The deposits of gold within the year amounted to $2,270,529, and those of silver to $1,362,330.

At the New Orleans branch mint, the coinage amounted to $2,483,800; comprising $1,272,800 in gold, and $1,211,000 in silver coins, and composed of 2,578,780 pieces. The deposits for coinage amounted to $1,207,538 in gold, and $1,216,436 in silver.

The branch mint at Dahlonega received, during the year, deposits of gold to the value of $455,149, and its coinage amounted to $449,727 50; composed of 80,294 half-eagles, and 19,303 quarter-eagles.

The rebuilding of the branch mint at Charlotte has been completed, and the new machinery made and set up, at a cost short of the estimates presented. The mint began its operations in October, 1846, and during the three remaining months of the year the deposits of gold amounted to $196,381, and the coinage to $76,995; composed of 12,995 half-eagles, and 4,808 quarter-eagles.

The whole coinage for the year, at the four mints, amounted to $6,633,965; composed of $4,034,177 in gold, $2,558,580 in silver, and $41,208 in copper coins.*

* For an elaborate article on the Coinage of the United States' Mint and Branches, with full tabular statements of coinage from the commencement of their operations in 1793, &c., to 1843, see Merchants' Magazine, Vol. X., No. 3, pp. 240–250; also, for an article on the United States' Branch Mint at New Orleans, see Merchants' Magazine, Vol. XIV., No. 1, pp. 66–69; also, see Vol. XV., No. 2, pp. 202–205, for tables of Coinage at the United States' Mint and Branches, in 1845, &c.

## FOREIGN CURRENCY, WEIGHTS, AND MEASURES.

The annexed table of foreign money or currency, weights and measures, as fixed by law or usage, emanates from the Treasury Department at Washington, and was appended to the tariff of duties imposed by the United States in such ports of Mexico as may be now or hereafter in our military possession, for the information of collectors of customs in Mexican ports. We republish it for the information of commercial men generally:—

THE RATES AT WHICH FOREIGN MONEY OR CURRENCY ARE FIXED BY LAW.

| | | | |
|---|---|---|---|
| Franc, of France or Belgium. | 18 6-10 | Pagoda, of India | $1 84 |
| Florin, of Netherlands | 40 | Real vellon, of Spain | 05 |
| Florin, of Southern States of Germany | 40 | Real plate, of Spain | 10 |
| Guilder of Netherlands | 40 | Rupee, Company | 44½ |
| Livre, (Tournois,) of France. | 18½ | Rupee, of British India | 44½ |
| Lira, of the Lombardo Venitian Kingdom | 16 | Specie dollar, of Denmark | 1 05 |
| Lira, of Tuscany | 16 | Rix dollar, or thaler, of Prussia & the North States of Germany. | 69 |
| Lira, of Sardinia | 18 6-10 | Rix dollar, of Bremen | 78½ |
| Milrea, of Portugal | $1 12 | Rouble, silver, of Russia | 75 |
| Milrea, of Azores | 83½ | Specie dollar, of Sweden and Norway | 1 06 |
| Marco Banco, of Hamburgh. | 35 | Florin, of Austria | 48½ |
| Pound sterl., of Gr't Britain. | 4 84 | Ducat, of Naples | 80 |
| Pound, of British Provinces of N. Scotia, N. Brunsw'k, Newfoundl'd and Canada. | 4 00 | Ounce, of Sicily | 2 40 |
| | | Tale, of China | 1 48 |
| | | Leghorn livre | 16 |

CURRENCIES BY USAGE, IN WHICH A CERTIFICATE OF VALUE IS REQUIRED TO BE ATTACHED TO THE INVOICE.

| | | | |
|---|---|---|---|
| Current marc | 28 | Livre, of Neufchatel | $0 26½ |
| Crown, of Tuscany | $1 05 | Paper rouble, varies from 4 roubles 65 copecks, to 4 roubles 84 copecks to the dollar. | |
| Florin, of Prussia | 22½ | | |
| Florin, of Basle | 41 | | |
| Florence livre | 15 | Rix dollar, of Saxony | 69 |
| Geneva livre | 21 | Rix dollar, Rhenish | 60½ |
| Jamaica pound | 5 00 | Swiss livre | 27 |
| Leghorn dollar | 90 | Scuda, of Malta | 40 |
| Livre, of Catalonia | 53½ | Turkish piastre | 05 |

TABLE OF FOREIGN WEIGHTS AND MEASURES, REDUCED TO THE STANDARD OF THE UNITED STATES.

| | | | |
|---|---|---|---|
| *Amsterdam.* | | Quarter of grain, or 8 imperial bushels | 8.25 bush. |
| 100 lbs, 1 centner | 108.93 lbs. | Imperial corn bushel, or 8 imperial gallons | 1.03 bush. |
| Last of grain | 85.25 bush. | Old Winchester, do | 1.00 bush. |
| Ahm of wine | 41.00 gal's. | Imperial yard | 36.00 inch. |
| Amsterdam foot | 0.93 ft. | Troy pound | 144-175 lbs. av. |
| Antwerp foot | 0.94 ft. | *France.* | |
| Rhineland foot | 1.03 ft. | Metre | 3.28 ft. |
| Amsterdam ell | 2.26 ft. | Decimetre (1-10th metre) | 3.94 inch. |
| Ell of the Hague | 2.28 ft. | Velt | 2.00 gal's. |
| Ell of the Brabant | 2.30 ft. | Hectolitre | 26.42 gal's. |
| *China.* | | Decalitre | 2.64 gal's. |
| Tail | 1½ oz. | Litre | 2.11 pints. |
| 16 tails 1 catty | 1⅓ lbs. | Kilolitre | 35.32 ft. |
| 100 catties 1 picul | 133⅓ lbs. | Hectolitre | 2.84 bush. |
| *Denmark.* | | Decalitre | 9.08 q'rts. |
| 100 pounds of centner | 110.28 lbs. | Millier | 2.025 lbs. |
| Barrel, or teonde, of coin | 3.95 bush. | Quintal | 220.54 lbs. |
| Viertel of wine | 2.04 gal's. | Kilogramme | 2.21 lbs. |
| Copenhagen, or Rhineland foot | 1.03 ft. | *Florence and Leghorn.* | |
| *England.* | | 100 pounds, or 1 cantaro | 74.86 lbs. |
| Old ale gallon | 1.22 gal's. | Moggio of grain | 16.59 bush. |
| Imperial gallon | 1.20 gal's. | Barille of wine | 12.04 gal's. |
| Old wine gallon | 1.00 gal's. | | |

| | |
|---|---|
| ***Genoa.*** | |
| 100 pounds, or peso grosso. | 76.87 lbs. |
| 100 pounds, or peso sottile. | 69.89 lbs. |
| Mina of grain | 3.43 bush. |
| Mezzerola of wine | 39.22 gal's. |
| ***Hamburgh.*** | |
| Last of grain | 86.64 bush. |
| Ahm of wine | 38.25 gal's. |
| Hamburgh foot | 0.96 ft. |
| Ell | 1.92 ft. |
| ***Malta.*** | |
| 100 pounds, 1 cantar | 174.50 lbs. |
| Salma of grain | 8.22 bush. |
| Foot | 0.85 ft. |
| ***Naples.*** | |
| Cantara grosso | 196.50 lbs. |
| Cantara picolo | 106.00 lbs. |
| Carro of grain | 52.24 bush. |
| Carro of wine | 264.00 gal's. |
| ***Netherlands.*** | |
| Ell | 3.28 ft. |
| Mudde of Zak | 2.84 bush. |
| Vat Hactolitre | 26.42 gal's. |
| Kan Litre | 2.11 pints. |
| Poud Kilogramme | 2.21 lbs. |
| ***Portugal.*** | |
| 100 pounds | 101.19 lbs. |
| 22 pounds | 22.26 lbs. |
| 4 arrobas of 22 pounds (1 quintal) | 89.05 lbs. |
| Alquiere | 4.75 bush. |
| Majo of grain | 23.03 bush. |
| Last of salt | 70.00 bush. |
| Almude of wine | 4.47 gal's. |
| ***Prussia.*** | |
| 100 pounds of 2 Cologne marks each | 103.11 lbs. |
| Quintal 110 pounds | 113.42 lbs. |
| Sheffel of grain | 1.56 bush. |
| Eimar of wine | 18.14 gal's. |
| Ell of cloth | 2.19 ft. |
| Foot | 1.03 ft. |
| ***Rome.*** | |
| Rubbio of grain | 8.36 bush. |
| Barih of wine | 15.31 gal's. |

| | |
|---|---|
| ***Russia.*** | |
| 100 pounds of 32 laths each | 90.26 lbs. |
| Chertwert of grain | 5.95 bush. |
| Vedro of wine | 3.25 gal's. |
| Petersburgh foot | 1.18 gal's. |
| Moscow foot | 1.10 gal's. |
| Pood | 1.36 lbs. |
| ***Sicily.*** | |
| Cantaro grosso | 192.50 lbs. |
| Cantaro sottile | 175.00 lbs. |
| 100 pounds | 70.00 lbs. |
| Salma grossa of grain | 9.77 bush. |
| Salma generale | 7.85 bush. |
| Salma of wine | 23.06 gal's. |
| ***Spain.*** | |
| Quintal, or 4 arrobas | 101.44 lbs. |
| Arroba | 25.36 lbs. |
| Arroba of wine | 4.43 gal's. |
| Tranega of grain | 1.60 bush. |
| ***Sweden.*** | |
| 100 pounds, or 5 lispunds. | 73.76 lbs. |
| Kan of Can | 7.42 bush. |
| Last | 75.00 bush. |
| Cann of wine | 69.00 gal's. |
| Ell of cloth | 1.95 ft. |
| ***Smyrna.*** | |
| 100 pounds, (1 quintal,) | 129.48 lbs. |
| Oke | 2.83 lbs. |
| Quiltal of grain | 1.46 bush. |
| Quiltal of wine | 13.50 gal's. |
| ***Trieste.*** | |
| 100 pounds | 123.60 lbs. |
| Stajo of grain | 2.34 bush. |
| Orna, or eirna of wine | 14.94 gal's. |
| Ell for woollen | 2.22 ft. |
| Ell for silk | 2.10 ft. |
| ***Venice.*** | |
| 100 pounds freso groso | 105.18 lbs. |
| 100 pounds peso sattile | 65.04 lbs. |
| Moggio of grain | 9.08 bush. |
| Anifara of wine | 137.00 gal's. |

## INSURANCE COMPANIES IN MASSACHUSETTS.

INSURANCE COMPANIES OUT OF BOSTON, IN MASSACHUSETTS, TO DECEMBER 1, 1846.

| | Capital. | At risk, Marine. | At risk, Fire. | Fire losses. | Mar. losses. |
|---|---|---|---|---|---|
| Lynn Mechanics' Fire and Marine | $50,000 | $30,700 00 | $14,450 00 | ..... | $600 98 |
| Marblehead Marine | 100,000 | 56,550 00 | ..... .. | ..... | 6,285 93 |
| Essex, Salem | 100,000 | 311,770 00 | 45,450 00 | ..... | 24,559 91 |
| Oriental, " | 200,000 | 342,305 00 | ..... .. | ..... | 1,681 41 |
| Fairhaven | 100,000 | ..... .. | ..... .. | ..... | 298 07 |
| N. Bedford Commercial. | 150,000 | 2,334,153 00 | ..... .. | ..... | 43,825 00 |
| " Mechanics' | 100,000 | 14,000 00 | ..... .. | ..... | 8,868 61 |
| " Pacific | 100,000 | ..... .. | ..... .. | ..... | 1,490 61 |
| " Whaling | 100,000 | 613,637 50 | ..... .. | ..... | 2,269 82 |
| Plymouth, Old Colony | 50,000 | 139,245 00 | 18,290 00 | ..... | 5,332 67 |
| Provincetown, Union | 75,000 | 126,161 00 | ..... .. | ..... | 4,611 03 |
| Nantucket, Commercial. | 75,000 | 285,730 50 | ..... .. | ..... | 5,957 81 |
| | $1,200,000 | $4,264,252 00 | $78,190 00 | ..... | $105,711 15 |

INSURANCE COMPANIES, WITH SPECIFIC CAPITAL, TO DEC. 1, 1846, IN BOSTON.

| | Capital. | At risk, Marine. | At risk, Fire. | Fire losses, last year. | Marine losses, last year. |
|---|---|---|---|---|---|
| American..... | $300,000 | $4,683,528 | $3,086,651 | $13,093 46 | $113,905 79 |
| Boston..... | 300,000 | 2,180,311 | ..... | ..... .. | 73,756 88 |
| Boylston and Fire Marine | 300,000 | 2,189,792 | 3,210,463 | 3,334 11 | 86,331 57 |
| Firemen's..... | 300,000 | ..... | 10,824,495 | 48,193 65 | ..... .. |
| Franklin ..... | 300,000 | 1,672,675 | 3,711,883 | 11,897 64 | 46,168 51 |
| Hope..... | 200,000 | 492,265 | ..... | ..... .. | 3,895 58 |
| Manufacturers' | 400,000 | 1,954,411 | 12,391,773 | 51,854 00 | 58,417 12 |
| Merc. Marine. | 300,000 | 1,639,071 | ..... | ..... .. | 61,608 78 |
| Merchants'..... | 500,000 | 7,247,702 | 13,856,305 | 38,883 26 | 142,296 72 |
| National..... | 500,000 | 4,239,462 | 7,867,453 | 22,692 59 | 51,822 36 |
| Neptune..... | 200,000 | 6,933,110 | 4,331,882 | 7,407 41 | 328,548 40 |
| Suffolk..... | 225,000 | 1,022,658 | 542,815 | 972 37 | 39,465 77 |
| Tremont..... | 200,000 | 4,734,337 | 1,338,786 | 2,107 84 | 173,138 75 |
| United States.. | 200,000 | 1,128,866 | 372,850 | 180 00 | 14,288 82 |
| Warren..... | 150,000 | 1,992,270 | ..... | ..... .. | 102,322 73 |
| Washington.... | 200,000 | 2,365,778 | ..... | ..... .. | 78,320 32 |
| | $4,575,000 | $44,476,236 | $61,535,356 | $200,616 33 | $1,374,278 10 |

## UNITED STATES TREASURY NOTES AND STOCKS.

TREASURY DEPARTMENT, March 22d, 1847.

All persons having business relating to the issuing and transfer of United States stock, and payment of interest thereon, are requested to address their communications to the Register of the Treasury, who has charge of all such matters.

On funding Treasury notes, he will hereafter issue certificates of stock on the receipted schedule signed by the Treasurer or Assistant Treasurers for the principal. Those officers will pay the interest due thereon in money.

Persons wishing to deposit Treasury notes for stock, are requested in all cases to make schedules of them, and cast the interest thereon according to forms which will be furnished by the Treasurer and Assistant Treasurers.

Parties depositing Treasury notes for stock, are requested to give the name of the person to whom the stock is to be issued, with his residence, and with the place where he wishes the interest to be paid.

The scrip will be issued to the person named in the certificate, unless when assigned and witnessed, in the same manner as provided for the transfer of certificates of stock.

Holders of notes, issued under different acts of Congress, will present them scheduled separately, and take separate certificates therefor.

After the 31st day of March, instant, all certificates of stock will be impressed with the seal of the department, and signed only by the Register of the Treasury.

R. J. WALKER, Secretary of the Treasury.

## FRENCH TOBACCO CONTRACT.

The large tobacco contracts advertised by the government have been taken up; the supply of 1,800,000 kilos. of Virginia, and 150,000 kilos. of Maryland, being taken by M. Pescatore, the first at 86f. 33c., the latter at 163½f. The supply of 2,400,000 kilos. of different descriptions of Maryland was contracted for by M. de Rothschild, at 109f. 81c. The conveyance of these vast quantities of tobacco from the United States to France gave rise to a discussion between the American minister, Mr. King, and the French government. The latter at first laid down the condition that the contractors should be bound to bring the tobacco to France in French vessels, but eventually consented to abandon it, in compliance with the remonstrances of Mr. King. Had it been persisted in, it would not only have been a heavy loss to American shipping, but a violation of the Navigation Treaty of 1822.

# MERCANTILE MISCELLANIES.

## THE GOOD MERCHANT.

In the last number of this Magazine, we gave a brief extract from the Rev. Theodore Parker's "*Sermon of Merchants,*" which was preached at Boston, on Sunday, the 22d of November, 1846. Near the close of that discourse, he describes in contrast the "Bad" and the "Good Merchant." As some of our readers would, perhaps, object to certain unique, and rather pungent terms, used in that portion of the description which refers to the former, we have concluded to transfer the more agreeable picture of the Good Merchant, and refer the curious in such matters to the discourse itself, which was published by request of those who heard it:—

"The Good Merchant tells the Truth and thrives by that; is upright and downright; his word, good as his Bible-oath. He pays for all he takes; though never so rich, he owns no wicked dollar; all is openly, honestly, manfully earned, and a full equivalent paid for it. He owns money and is worth a man. He is just, in business with the strong; charitable, in dealing with the weak. His Counting-Room, or his Shop, is the sanctuary of fairness, justice—a school of uprightness, as well as thrift. Industry and Honor go hand in hand with him. He gets rich by industry and forecast, not by sleight of hand and shuffling his cards to another's loss. No man becomes the poorer because he is rich. He would sooner hurt himself than wrong another, for he is a man, not a fox. He entraps no man with lies, active or passive. His Honesty is better capital than a Sharper's Cunning. Yet he makes no more talk about Justice and Honesty, than the Sun talks of light and heat; they do their own talking. His profession of Religion is all practice. He knows that a good man is just as near Heaven in his shop, as in his church; at work, as at prayer; so he makes all work sacramental; he communes with God and Man in buying and selling—communion in both kinds. He consecrates his week-day and his work. Christianity appears more divine in this man's deeds than in the holiest words of Apostle or Saint. He treats every man as he wishes all to treat him, and thinks no more of that than of carrying one for every ten. It is the rule of his arithmetic. You know this man is a Saint, not by his creed, but by the letting of his houses, his treatment of all that depend on him. He is a Father to defend the weak, not a Pirate to rob them. He looks out for the welfare of all that he employs; if they are his help, he is theirs; and as he is the strongest, so the greater help. His private prayer appears in his public work; for in his devotion he does not apologise for his sin, but asking to outgrow that, challenges himself to new Worship and Piety. He sets on foot new enterprises, which develop the nation's wealth, and help others while they help him. He wants laws that take care of Man's Rights, knowing that then he can take care of himself and of his own, but hurt no man by so doing. He asks laws for the weak; not against them. He would not take vengeance on the wicked, but correct them. His Justice tastes of Charity. He tries to remove the causes of Poverty, Licentiousness, of all crime, and thinks that is alike the duty of Church and State. Ask not him to make a Statesman a Party Man, or the churches an apology for his lowness; he knows better—he calls that Infidelity. He helps the weak help themselves. He is a moral educator—a church of Christ gone into business—a Saint in trade. The Catholic Saint who stood on a pillar's top, or shut himself into a den and fed on grass, is gone to his place—that Christian Nebuchadnezzar. He got fame in his day. No man honors him now; nobody even imitates him. But the Saint of the nineteenth century is the Good Merchant; he is wisdom for the foolish, strength for the weak, warning to the wicked, and a blessing to all. Build him a shrine in Bank and Church, in the Market and the Exchange, or build it not: no Saint stands higher than this Saint of Trade. There are such men, rich and poor, young and old; such men in Boston. I have known more than one such, and far greater and better than I have told of, for I purposely under-color this poor sketch. They need no word of mine for encouragement or sympathy. Have they not Christ and God to aid and bless them? Would that some word of mine might stir the heart of others to be such—of you young men. They stand there clean amid the dust of commerce and the mechanic's busy life; they stand there like great square Pyramids in the desert, amongst the shifting tents of the Arabs. Look at them, ye young men, and be healed of your folly. Think—it is not the calling which corrupts the man, but the men the calling. The most experienced will tell you so. I know it demands manliness to make a man, but it is that work God sent you here to do."

## COMMERCIAL VALUE OF THE MICROSCOPE.

METHOD OF DETECTING FRAUDS IN THE ADULTERATION OF MUSK.

Dr. Neligan, the lecturer on *materia medica*, in the Dublin medical school, has discovered the means of detecting the adulteration of musk, by the aid of the microscope. This gentleman states, as we learn from the British Critic, that owing to the high price and great demand for musk, which, as is now generally very well known, is the secretion from the male musk animal, the *moschus moschiferus*, and that it is generally imported into the British market from China, in the natural bags of the animal, by wholesale London druggists, by whom it is retailed to the trade, many of them finding it very much adulterated, prefer purchasing the unopened bag; this precaution, however, is often found not a sufficient protection against fraud, as spurious musk bags are very common, and so well prepared by the ingenious Chinaman, that even the most experienced eye is often unable to distinguish the true from the false. It appears that the Chinese, finding a greater demand for musk than they are able to supply with the genuine article, squeeze out some of the secretion, which is fluid in the recent state, and mix it with, it is believed, the dried blood of the animal; this compound, which presents the same physical characters as true musk, they put into small sacs made of pieces of the skin cut off from other parts of the animal's body, and prepared with the usual ingenuity of this people, so much so, indeed, as almost to defy detection with the naked eye. The method hitherto adopted for detecting this sophistication, has been the peculiar position of the hairs, which are arranged in a circular manner around the orifice in the genuine musk pod. The means which are now proposed to detect the fraud, depend on the microscopic character of the hairs, which grow on the sac of the musk animal, and which differ very remarkably from those of the false sacs which are met with in commerce. On placing hairs from both under the microscope, it will be seen that those from the natural sac of the animal are furnished in the interior with distinct, regular, color cells, while in hairs taken from other parts of the animal's body, those cells appear to be obliterated, as is generally the case in this and the allied tribes of animals. The method above proposed, to detect imposition, is a very simple one, and of easy application now that every pharmaceutist is supposed to be provided with a microscrope, without which, he could not possibly detect the adulteration of arrow-root and of the other feculas of commerce.

## IMPRISONMENT FOR DEBT.

A correspondent wishes us to attack imprisonment for debt, which, we believe, still continues in this enlightened commonwealth, (Massachusetts,) provided the creditor swears that he has reason to believe the debtor intends to leave the State. This law, our correspondent says, is the fruitful source of perjury. It would be wonderful if it were not. We confess we can see no good reason for such a law. It is no crime to leave the State. It is even no evidence that the debtor does not intend to pay. His leaving the State may be necessary to acquire the means of paying. The law operates against the poor; for, against those who have property, there is another remedy. But we wish the legislature, while about it, would copy the wisdom of Wisconsin, and lay the axe at the root of the credit system. Some time or other it must do so; why delay? Let there be no laws whatever for the collection of debts under a certain sum, say one hundred dollars. We believe it better to have none for any sum. But we must creep before we can walk. Let us first abolish the small credit system which entraps the poor. This can be done effectually by repealing all laws for the compulsory collection of small debts. Let credit live as it can under this system. Live, it will, on the soil of humanity and honor. And in regard to large debts, we believe those merchants, who have trusted altogether to honor and not at all to lawyers or law, will be found to have come off best in the long run. Law is a poor remedy for roguery—better keep clear of both. In saying all this, we beg the pardon of our numerous legal patrons. We hope they won't *stop.—Boston Chronotype.*

# NAUTICAL INTELLIGENCE.

## PASSAGE THROUGH THE STRAITS OF MAGELLAN.

The following is a copy of a letter addressed to the editor of the "European Times," by John Longmuier, master of the bark Cape Horn, of Glasgow. It contains information of sufficient importance to mariners, to entitle it to a place in the "Nautical Intelligence" of this Journal:—

"On Monday, November 16th, 1846, at 8 P. M., we made the Evangelists, bearing N. N. E. five miles, wind W. and tolerably clear; at midnight, Cape Pillar bore S. S. W. three miles, and by keeping the starboard shore on board, strangers will find no difficulty in finding Long Reach. On Tuesday, 17th, at noon, we entered Crooked Reach; at 10 P. M., were off Port Famine, which is a safe anchorage ground, and where there is a Chilian settlement, at which refreshments can be easily procured. On Wednesday, 18th, at 4 30 P. M., came to anchor in Gregory's Bay, in fifteen fathoms, good holding ground. On Thursday, 19th, at 3 30 A. M., got under weigh; at 7 30 A. M., entered the First Narrows, with a strong flood-tide against us, which we found no difficulty in stemming. At 2 P. M., we were clear of the Straits; at 6 P. M., we rounded Dungeness; and, after the experience of four voyages round Cape Horn, in September, 1843, August, 1844, August, 1845, and the present voyage, I must say, that the wear and tear, owing to the bad weather we encountered, with heavy cross sea, so prevalent between the W. entrance to the Straits and Cape Horn, contrasted with the passage through the Straits from the W. coast, is, in my opinion, not to be compared; and, had I another passage to make at the same season of the year, or in the winter season, with moonlight, I would take the Straits for my passage. The risk of life and property, and the wear and tear in the one, are not to be compared with the other."

## WRECK NEAR THE FIVE FATHOM CHANNEL.

A green buoy, marked with the word "Wreck," has been placed W. N. W. of a sunken smack, on the edge of the Cant, in the track of shipping proceeding to and from the Five Fathom Channel. The buoy lies in four fathoms, at low water spring tides, with the following marks and compass bearings, viz: the highest windmill at Mile Town, in line with the windmill near the beach, W. by S.; the Southernmost beacon on the Isle of Grain, its apparent length open S. of the other beacon on the beach, W. ¼ N.; Nore light-vessel N. W.; Minster Church, S. W. ¼ W.; Garrison Point at Sheerness, W.

## BUOY ON THE SALT SCAR, OFF REDCAR.

A black buoy has been placed, to mark the extremity of the Eastern projection of the Salt Scar rocks, off Redcar, in the North Riding of the county of York. The said buoy lies in six and a half fathoms, at low water spring tides, and with the following marks and compass bearings, viz: Seaton high light-house, N. W.; Redcar mill, and the tower on Easton Nab in line, S. W. by W.; Marsk Church, S. ¼ W.; Hartlepool pier light-house, N. N. W. ¼ W.

## WRECK IN THE SHIPWAY.

A green buoy, marked with the word "Wreck," has been placed about eighteen fathoms E. N. E. of a vessel sunk in the track of shipping passing through the Shipway. The buoy lies in nine fathoms, at low water spring tides, with the following compass bearings, viz: S. W. buoy of the Shipwash, (distant about one mile and three-quarters,) S. S. W.; Shipwash light-vessel, N. E.; Bandsey Church, N. N. W.

## PORT OF GENOA LIGHT.

Official notice has been given, that a red light has been placed on a sunken caisson, about six hundred and fifty yards off the sunken Mole Head. The light stands thirty-three feet above the sea, and may be seen at the distance of a mile.

# COMMERCIAL STATISTICS.

## COMMERCE AND NAVIGATION OF THE UNITED STATES,

FOR THE FISCAL YEAR ENDING JUNE 30, 1846.

We are indebted to the Hon. B. B. French, Clerk of the House of Representatives, for the annual report from the Register of the Treasury, relative to the Commerce and Navigation between the United States and Foreign Countries, for the year ending June 30th, 1846; and proceed to lay before the readers of the Merchants' Magazine, our usual condensation of its tabular statements. This report was laid before Congress on the 5th December, 1846, more than five months after the expiration of the fiscal year; and its printing has occupied nearly five months longer; so that ten months are suffered to elapse before the statements for the year ending June 30th, 1846, are made public—a circumstance which greatly injures the value of a document so important to the industrial and commercial interests of the country. The only remedy for this evil, we have pointed out in former years. It is, for Congress to pass a law authorizing the printing of the usual number of the document, as soon as it is made up by the Register of the Treasury; so that at the meeting of Congress, in December of each year, it would be ready for the use of members of Congress, as well as general distribution among their constituents.*

### DOMESTIC EXPORTS OF THE UNITED STATES.

*Summary Statement of the Value of the Exports of the Growth, Produce, and Manufacture of the United States, during the year commencing on the 1st day of July, 1845, and ending on the 30th day of June, 1846.*

| | | | |
|---|---|---|---|
| THE SEA. | | Butter and cheese | $1,063,087 |
| Fisheries— | | Pork, (pickled,) bacon, lard, | |
| Dried fish, or cod fisheries | $699,559 | live hogs | 3,883,884 |
| Pickled fish, or river fisheries, (herring, shad, salmon, mackerel) | 230,495 | Horses and mules | 382,382 |
| Whale and other fish oil | 946,298 | Sheep | 30,303 |
| Spermaceti oil | 697,570 | | $7,883,864 |
| Whalebone | 583,870 | Vegetable food— | |
| Spermaceti candles | 295,606 | Wheat | 1,681,975 |
| | $3,453,398 | Flour | 11,668,669 |
| THE FOREST. | | Indian corn | 1,186,663 |
| Skins and furs | 1,063,009 | Indian meal | 945,081 |
| Ginseng | 237,562 | Rye meal | 138,110 |
| Product of wood— | | Rye, oats, and other small grain, and pulse | 638,221 |
| Staves, shingles, b'rds, hewn timber | 2,319,443 | Biscuit or ship-bread | 366,688 |
| Other lumber | 324,979 | Potatoes | 69,934 |
| Masts and spars | 21,682 | Apples | 69,253 |
| Oak bark and other dye | 61,382 | Rice | 2,564,991 |
| All manufactures of wood | 957,790 | | $27,163,449 |
| Naval stores, tar, pitch, and turpentine | 1,085,712 | Tobacco | 8,478,270 |
| Ashes, pot and pearl | 735,689 | Cotton | 42,767,341 |
| | $6,807,248 | Wool | 203,996 |
| AGRICULTURE. | | All other agricult'l products— | |
| Product of animals— | | Flaxseed | 165,438 |
| Beef, tallow, hides, horned cattle | 2,474,208 | Hops | 41,692 |
| | | Brown Sugar | 7,235 |
| | | Indigo | 90 |
| | | | $214,455 |

* For remarks on this subject, see Merchants' Magazine, Vol. XV., No. 5, for May, 1846, page 465, and previous volumes.

DOMESTIC EXPORTS OF THE UNITED STATES—CONTINUED.

| MANUFACTURES. | |
|---|---|
| Soap and tallow candles | $630,041 |
| Leather, boots and shoes | 346,516 |
| Household furniture | 317,407 |
| Coaches and other carriages | 87,712 |
| Hats | 74,722 |
| Saddlery | 24,357 |
| Wax | 162,790 |
| Spirits from grain | 73,716 |
| Beer, ale, porter, and cider | 67,735 |
| Snuff and tobacco | 695,914 |
| Linseed oil and spirits of turpentine | 159,915 |
| Cordage | 62,775 |
| Iron—pig, bar, and nails | 122,225 |
| castings | 107,905 |
| all manufactures of | 921,652 |
| Spirits from molasses | 268,652 |
| Sugar, refined | 392,312 |
| Chocolate | 2,177 |
| Gunpowder | 140,879 |
| Copper and brass | 62,088 |
| Medicinal drugs | 200,505 |
| | $4,921,995 |
| Cotton piece goods— | |
| Printed and colored | 380,549 |
| White | 1,978,331 |
| Nankeen | 848,989 |
| Twist, yarn, and thread | 81,813 |
| All other manufactures of | 255,799 |
| Flax and hemp— | |
| Cloth and thread | 1,364 |
| Bags and all manufactures of | 10,765 |
| Wearing apparel | 45,140 |
| Combs and buttons | 35,945 |
| Brushes | $3,110 |
| Billiard tables and apparatus | 1,583 |
| Umbrellas and parasols | 2,477 |
| Leather and morocco skins, not sold per pound | 26,667 |
| Fire-engines and apparatus | 9,802 |
| Printing-presses and type | 43,792 |
| Musical instruments | 25,375 |
| Books and maps | 63,567 |
| Paper and stationery | 124,597 |
| Paints and varnish | 52,182 |
| Vinegar | 17,489 |
| Earthen and stone ware | 6,521 |
| Manufactures of glass | 90,860 |
| tin | 8,902 |
| pewter & lead | 10,278 |
| marble&stone | 14,234 |
| gold and silver & gold leaf | 3,660 |
| Gold and silver coin | 423,851 |
| Artificial flowers and jewelry | 24,420 |
| Molasses | 1,581 |
| Trunks | 10,613 |
| Bricks and lime | 12,578 |
| Domestic salt | 30,520 |
| | $4,647,354 |
| Lead | 614,518 |
| Articles not enumerated— | |
| Manufactured | 1,379,566 |
| Other articles | 1,490,303 |
| | $2,869,869 |
| Grand Total | $102,141,893 |

RECAPITULATION.

| | |
|---|---|
| The Sea | $3,453,398 |
| The Forest | 6,807,248 |
| Agriculture | 7,833,864 |
| Vegetable food | 19,329,585 |
| Tobacco | 8,478,270 |
| Cotton | 42,767,341 |
| Other agricultural products | 214,455 |
| Manufactures | 10,948,915 |
| Wool | 203,996 |
| Lead | 614,518 |
| Other articles | 1,490,303 |

DOMESTIC EXPORTS OF THE UNITED STATES, IN 1845–46.

| Whither exported. | ARTICLES NOT ENUMERATED. Manufactured. | Other. | TOTAL VALUE OF MERCHANDISE. In American vessels. | In Foreign vessels. | To each country. |
|---|---|---|---|---|---|
| Russia | ..... | $300 | $442,033 | $93,355 | $535,388 |
| Prussia | ..... | .... | 40,093 | 356,117 | 396,210 |
| Sweden and Norway | $1,320 | 616 | 53,337 | 309,455 | 362,792 |
| Swedish West Indies | 970 | 410 | 138,121 | ..... | 138,121 |
| Denmark | ..... | .... | 19,164 | 78,582 | 97,746 |

DOMESTIC EXPORTS OF UNITED STATES TO EACH COUNTRY—CONTINUED.

| Whither exported. | ARTICLES NOT ENUMERATED. Manufactured. | Other. | TOTAL VALUE OF MERCHANDISE. In American vessels. | In Foreign vessels. | To each country. |
|---|---|---|---|---|---|
| Danish West Indies | $5,973 | $7,274 | $919,601 | $39,851 | $959,452 |
| Hanse Towns | 22,820 | 25,106 | 635,699 | 3,372,616 | 4,008,315 |
| Holland | 7,984 | 15,274 | 1,377,508 | 720,183 | 2,097,691 |
| Dutch East Indies | ..... | 150 | 40,700 | ..... | 40,700 |
| Dutch West Indies | 1,433 | 1,487 | 362,775 | 872 | 264,647 |
| Dutch Guiana | 151 | 388 | 66,845 | ..... | 66,845 |
| Belgium | 6,421 | 14,498 | 1,310,754 | 321,853 | 1,632,607 |
| England | 389,294 | 701,926 | 31,274,643 | 11,506,976 | 42,781,619 |
| Scotland | 118 | 39,073 | 887,202 | 756,128 | 1,643,330 |
| Ireland | ..... | 16 | 1,031,443 | 45,565 | 1,077,008 |
| Gibraltar | 363 | 1,288 | 451,882 | 11,359 | 463,241 |
| Malta | 540 | ..... | 23,754 | ..... | 23,754 |
| British East Indies | 5,963 | 53,001 | 264,145 | 6,455 | 270,600 |
| Cape of Good Hope | 202 | 4 | 23,713 | ..... | 23,713 |
| Mauritius | 334 | 596 | 26,356 | ..... | 26,356 |
| Australia | 1,013 | 927 | 48,783 | ..... | 48,783 |
| Honduras | 5,812 | 1,494 | 325,494 | ..... | 325,494 |
| British Guiana | 6,063 | 11,570 | 464,129 | 87,539 | 551,668 |
| British West Indies | 50,733 | 107,357 | 4,221,598 | 693,485 | 4,915,083 |
| British American Colonies | 639,088 | 259,146 | 3,536,462 | 2,506,204 | 6,042,666 |
| France on the Atlantic | 24,920 | 45,263 | 11,751,299 | 951,673 | 12,702,972 |
| France on the Mediterran. | 13,797 | 6,766 | 865,423 | 33,255 | 898,678 |
| French West Indies | 10,138 | 12,185 | 587,724 | 30,388 | 618,112 |
| French Guiana | 210 | 886 | 39,270 | ..... | 39,270 |
| French African ports | ..... | ..... | ..... | 5,995 | 5,995 |
| Bourbon | ..... | ..... | 12,259 | ..... | 12,259 |
| Spain on the Atlantic | ..... | ..... | 315,712 | 29,730 | 345,442 |
| Spain on the Mediterran. | ..... | ..... | 75,735 | 6,700 | 82,435 |
| Teneriffe and oth. Canaries | ..... | ..... | 9,734 | 3,338 | 12,072 |
| Manilla and Philippine i'ds | 519 | 2,574 | 100,954 | ..... | 100,954 |
| Cuba | 41,004 | 47,980 | 4,285,913 | 428,053 | 4,713,966 |
| Other Spanish W. Indies | 3,136 | 10,483 | 656,101 | 19,340 | 675,441 |
| Portugal | 406 | 6,032 | 69,788 | 26,528 | 96,316 |
| Madeira | 112 | 655 | 53,309 | 7,634 | 60,943 |
| Fayal and other Azores | .... | .... | 995 | 3,230 | 4,225 |
| Cape de Verd Islands | 883 | 340 | 31,097 | ..... | 31,097 |
| Italy | 526 | 925 | 788,642 | 153,621 | 942,263 |
| Sardinia | 1,486 | 866 | 263,902 | 19,381 | 283,283 |
| Sicily | ..... | 175 | 19,291 | 300,150 | 319,441 |
| Trieste and oth. Aust. ports | ..... | 795 | 953,328 | 151,140 | 1,104,468 |
| Turkey, Levant, &c. | 1,774 | .... | 126,193 | ..... | 126,193 |
| Hayti | 8,778 | 2,979 | 1,089,112 | 24,901 | 1,114,013 |
| Texas | 12,142 | 6,640 | 229,025 | 21,215 | 250,240 |
| Mexico | 29,276 | 6,927 | 800,592 | 100,741 | 901,333 |
| Central Repub. of America | 1,528 | 127 | 57,002 | 18,134 | 75,136 |
| New Grenada | 248 | 519 | 34,988 | 16,861 | 51,849 |
| Venezuela | 14,656 | 3,343 | 513,130 | 70,939 | 584,069 |
| Brazil | 9,904 | 59,990 | 2,596,201 | 157,811 | 2,754,012 |
| Cisplatine Republic | 2,700 | 1,442 | 199,169 | 11,217 | 210,406 |
| Argentine Republic | 5,777 | 506 | 147,307 | ..... | 147,307 |
| Chili | 22,031 | 7,977 | 1,539,136 | ..... | 1,539,136 |
| China | 2,746 | 8,920 | 1,178,188 | ..... | 1,178,188 |
| West Indies generally | ..... | 1,219 | 127,411 | ..... | 127,461 |
| South America generally | 4,490 | 790 | 108,772 | ..... | 103,772 |
| Asia generally | 138 | ..... | 302,232 | ..... | 302,232 |
| Africa generally | 5,265 | 2,467 | 544,467 | 8,913 | 553,380 |
| South Seas and Pacific | 14,381 | 8,631 | 278,705 | ..... | 278,705 |
| Total | $1,379,566 | $1,490,303 | $78,634,410 | $23,507,483 | $102,141,893 |

## FOREIGN EXPORTS OF THE UNITED STATES, IN 1845–46.

| Whither exported. | Free of duty. | Paying ad val. duties. | Paying specific duties. | Total. | To dominions of each power. |
|---|---|---|---|---|---|
| Russia | $46,896 | $4,506 | $45,677 | $97,079 | $97,079 |
| Prussia | 30,058 | 3,218 | 6,369 | 39,645 | 39,645 |
| Sweden and Norway | 23,471 | 5,182 | 10,892 | 39,545 | 42,993 |
| Swedish West Indies | 2,361 | ..... | 1,087 | 3,448 | |
| Denmark | 9,838 | 4,604 | 9,054 | 23,496 | 189,960 |
| Danish West Indies | 107,235 | 26,498 | 32,731 | 166,464 | |
| Hanse Towns | 164,876 | 233,529 | 201,900 | 600,305 | 600,306 |
| Holland | 79,546 | 84,902 | 34,626 | 199,074 | 257,562 |
| Dutch East Indies | 38,846 | ..... | 3,996 | 42,842 | |
| Dutch West Indies | 9,218 | 1,571 | 3,718 | 14,507 | |
| Dutch Guiana | 45 | ..... | 1,094 | 1,139 | |
| Belgium | 164,843 | 241,162 | 343,202 | 749,207 | 749,207 |
| England | 1,164,694 | 340,280 | 253,515 | 1,758,489 | 3,512,131 |
| Scotland | 8,678 | 32,499 | 4,239 | 45,416 | |
| Ireland | 290 | 5,173 | ..... | 5,463 | |
| Gibraltar | 104,635 | 5,682 | 19,334 | 129,651 | |
| Malta | 8,682 | ..... | 2,245 | 10,927 | |
| British East Indies | 82,426 | 13,999 | 3,347 | 99,772 | |
| British Honduras | 9,380 | 27,991 | 27,167 | 64,538 | |
| British Guiana | ..... | ..... | 1,634 | 1,634 | |
| British West Indies | 11,438 | 7,119 | 13,917 | 32,474 | |
| British American Colonies | 802,882 | 156,043 | 404,842 | 1,363,767 | |
| France on the Atlantic | 1,232,888 | 82,646 | 40,943 | 1,337,477 | 1,548,565 |
| France on Mediterranean | 95,577 | 22,817 | 73,054 | 191,448 | |
| French West Indies | 5,687 | ..... | 11,822 | 17,509 | |
| French Guiana | ..... | ..... | 2,131 | 2,131 | |
| Spain on the Mediterranean | 47,718 | ..... | ..... | 47,718 | 860,918 |
| Teneriffe and oth. Canaries | 731 | 386 | 3,723 | 4,840 | |
| Manilla and Philippine i'ds. | 9,008 | ..... | 277 | 9,285 | |
| Cuba | 347,942 | 260,647 | 164,581 | 773,170 | |
| Other Spanish West Indies | 16,379 | 4,051 | 5,475 | 25,905 | |
| Portugal | 6,417 | 900 | 1,136 | 8,453 | 12,395 |
| Madeira | 1,686 | 120 | 1,451 | 3,257 | |
| Cape de Verds | 184 | ..... | 501 | 685 | |
| Italy | 128,524 | 154,394 | 141,734 | 424,652 | 424,652 |
| Sicily | 55,955 | 110,202 | 132,234 | 298,391 | 298,391 |
| Sardinia | 216 | 548 | 212 | 976 | 976 |
| Trieste, &c. | 114,485 | 20,942 | 230,716 | 366,143 | 366,143 |
| Turkey, Levant, &c. | 41,415 | 1,141 | 31,354 | 73,910 | 73,910 |
| Hayti | 23,098 | 7,948 | 12,083 | 43,129 | 43,129 |
| Texas | 16,079 | 113,527 | 93,757 | 223,363 | 223,363 |
| Mexico | 23,641 | 436,861 | 169,345 | 629,847 | 629,847 |
| Central Repub. of America | 5,849 | 29,130 | 10,138 | 45,117 | 45,117 |
| New Grenada | 1,582 | 14,935 | 7,578 | 24,095 | 24,095 |
| Venezuela | 161,814 | 18,022 | 17,642 | 197,478 | 197,478 |
| Brazil | 270,462 | 49,348 | 69,573 | 389,383 | 389,383 |
| Cisplatine Republic | 10,231 | 1,913 | 3,354 | 15,498 | 15,498 |
| Argentine Republic | 28,595 | 1,075 | 8,448 | 38,118 | 38,118 |
| Chili | 25,188 | 120,403 | 83,843 | 229,434 | 229,434 |
| Equador | ..... | ..... | 1,130 | 1,130 | 1,130 |
| China | 196,996 | 4,177 | 22,380 | 153,553 | 153,553 |
| West Indies generally | ..... | 78 | 112 | 190 | 190 |
| Asia generally | 109,651 | 2,052 | 14,584 | 126,287 | 126,287 |
| Africa generally | 54,526 | 7,509 | 16,886 | 78,971 | 78,971 |
| South Seas and Pacific | 10,184 | 42,471 | 23,543 | 76,198 | 76,198 |
| Total | $5,824,046 | $2,702,251 | $2,820,326 | $11,346,623 | $11,346,623 |
| Entitled to drawback | ..... | 2,496,964 | 2,741,238 | 5,238,202 | ..... |
| Not entitled to drawback | 5,824,046 | 205,287 | 79,088 | 6,108,421 | ..... |

IMPORTS OF THE UNITED STATES, IN 1845–46.

| Whence imported. | Free of duty. | Ad valorem. | Specific duties. | Total. | From each power. |
|---|---|---|---|---|---|
| Russia | $39,135 | $595,115 | $935,804 | $1,570,054 | $1,570,054 |
| Prussia | 1,125 | 12,685 | 17,774 | 31,584 | 31,584 |
| Sweden and Norway | 2,096 | 4,172 | 718,597 | 724,865 | 730,150 |
| Swedish West Indies | 4,062 | 641 | 582 | 5,285 | |
| Denmark | ..... | 303 | 1,010 | 1,313 | 753,927 |
| Danish West Indies | 103,173 | 51,910 | 597,531 | 752,614 | |
| Hanse Towns | 187,628 | 2,674,632 | 287,604 | 3,149,864 | 3,149,864 |
| Holland | 365,705 | 245,012 | 448,880 | 1,058,597 | 1,971,680 |
| Dutch East Indies | 273,486 | 99,021 | 107,846 | 480,353 | |
| Dutch West Indies | 67,877 | 201,637 | 128,542 | 398,056 | |
| Dutch Guiana | 97 | ..... | 33,577 | 33,674 | |
| Belgium | 17,070 | 730,252 | 89,050 | 836,372 | 836,372 |
| England | 2,471,787 | 34,266,041 | 7,106,332 | 43,844,160 | 49,666,422 |
| Scotland | 4,524 | 959,409 | 266,153 | 1,230,086 | |
| Ireland | 71 | 55,249 | 30,454 | 85,774 | |
| Gibraltar | 5 | 21,083 | 6,718 | 27,806 | |
| Malta | ..... | 178 | 21,411 | 21,589 | |
| British East Indies | 472,873 | 658,877 | 229,595 | 1,361,345 | |
| Cape of Good Hope | 11,223 | 68,433 | 2,030 | 81,686 | |
| British Honduras | 162,096 | 16,195 | 29,706 | 207,997 | |
| British Guiana | 10,105 | 18 | 2,438 | 12,561 | |
| British West Indies | 471,719 | 55,399 | 306,560 | 833,678 | |
| British American Colonies | 971,574 | 347,531 | 618,612 | 1,937,717 | |
| Mauritius | 138 | ..... | 21,885 | 22,023 | |
| France on the Atlantic | 433,723 | 12,053,497 | 10,121,369 | 22,608,589 | 24,330,882 |
| France on Mediterranean | 483,629 | 352,159 | 466,955 | 1,302,743 | |
| French West Indies | 237,195 | 3,480 | 107,561 | 348,236 | |
| French Guiana | 8,000 | 11,831 | 51,465 | 71,296 | |
| Miquelon & French fish'ries | ..... | 18 | ..... | 18 | |
| Spain on the Atlantic | 5,754 | 40,748 | 100,861 | 147,363 | 12,376,482 |
| Spain on the Mediterranean | 18,469 | 88,913 | 757,034 | 864,416 | |
| Teneriffe and oth. Canaries | 53,030 | 357 | 8,708 | 62,095 | |
| Manilla and Philippine i'ds. | 18,065 | 64,123 | 763,678 | 865,866 | |
| Cuba | 929,781 | 764,962 | 6,464,889 | 8,159,632 | |
| Other Spanish West Indies | 111,623 | 22,040 | 2,143,447 | 2,227,110 | |
| Portugal | 8,407 | 2,111 | 367,732 | 378,250 | 547,474 |
| Madeira | ..... | 2,337 | 124,733 | 127,070 | |
| Fayal | 4,770 | 10,310 | 26,217 | 41,297 | |
| Cape de Verds | 717 | ..... | 140 | 857 | |
| Italy | 88,841 | 699,535 | 401,410 | 1,189,786 | 1,189,786 |
| Sicily | 66,063 | 294,760 | 152,412 | 513,235 | 513,235 |
| Trieste | 40,591 | 164,734 | 174,394 | 379,719 | 379,719 |
| Turkey | 57,102 | 437,918 | 265,978 | 760,998 | 760,998 |
| Morocco | ..... | 4,554 | ..... | 4,554 | 4,554 |
| Hayti | 1,337,384 | 177,003 | 28,575 | 1,542,962 | 1,542,962 |
| Texas | 11,353 | 20,951 | 150,755 | 183,058 | 183,058 |
| Mexico | 1,144,475 | 534,382 | 157,764 | 1,836,621 | 1,836,621 |
| Central Repub. of America | 39,902 | 39,830 | 37,001 | 116,733 | 116,733 |
| New Grenada | 43,373 | 22,170 | 1,500 | 35,043 | 35,043 |
| Venezuela | 940,748 | 415,834 | 152,410 | 1,458,000 | 1,458,000 |
| Brazil | 6,115,523 | 1,002,556 | 323,724 | 6,903,803 | 6,903,803 |
| Cisplatine Republic | 3,000 | 23,472 | ..... | 26,472 | 26,472 |
| Argentine Republic | 1 | 798,165 | 1,047 | 799,213 | 799,213 |
| Chili | 994,044 | 281,137 | 779 | 1,275,960 | 1,275,960 |
| Peru | 212,193 | 25,985 | 14,421 | 252,599 | 252,599 |
| China | 5,050,313 | 760,546 | 783,022 | 6,593,881 | 6,593,881 |
| Asia generally | 143,433 | 142,724 | 75,831 | 361,988 | 361,988 |
| Africa generally | 178,996 | 287,276 | 8,768 | 475,040 | 475,040 |
| South Seas and Pacific | 117,395 | 35,362 | 272 | 153,029 | 153,029 |
| Sandwich Islands | 232,265 | 10,714 | 55 | 243,034 | 243,034 |
| Atlantic Ocean | ..... | 166 | .... | 166 | 166 |
| West Indies generally | 12 | ..... | .... | 12 | 12 |
| Total | $24,767,739 | 60,660,453 | 36,263,605 | 121,691,797 | 121,691,797 |

## EXPORTS AND IMPORTS OF EACH OF THE UNITED STATES, FROM JULY 1, 1845, TO JUNE 30, 1846.

| States. | VALUE OF EXPORTS. | | | | | | | VALUE OF IMPORTS. | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | DOMESTIC PRODUCE. | | | FOREIGN PRODUCE. | | | Total of American and foreign produce. | | | |
| | In American vessels. | In Foreign vessels. | Total. | In American vessels. | In Foreign vessels. | Total. | | In American vessels. | In Foreign vessels. | Total. |
| Maine | $1,299,303 | $18,796 | $1,318,099 | $1,121 | $9,148 | $10,269 | $1,328,368 | $674,146 | $112,946 | $787,092 |
| New Hampshire | 2,745 | 2,252 | 4,997 | ..... | 75 | 75 | 5,072 | 10,936 | 4,549 | 15,485 |
| Vermont | 215,316 | ..... | 215,316 | 188,504 | ..... | 188,504 | 403,820 | 127,223 | ..... | 127,223 |
| Massachusetts | 6,852,656 | 984,359 | 7,837,015 | 1,865,726 | 610,377 | 2,476,103 | 10,313,118 | 19,256,942 | 4,934,021 | 24,190,963 |
| Rhode Island | 176,160 | 43,859 | 220,019 | 4,325 | 20 | 4,345 | 224,364 | 208,045 | 2,444 | 210,489 |
| Connecticut | 713,796 | 52,116 | 765,912 | 10,000 | ..... | 10,000 | 775,912 | 403,775 | 9,703 | 413,478 |
| New York | 24,353,483 | 5,232,383 | 29,585,866 | 4,855,722 | 2,493,825 | 7,349,547 | 36,935,413 | 65,903,763 | 8,350,520 | 74,254,283 |
| New Jersey | 4,087 | ..... | 4,087 | ..... | ..... | ..... | 4,087 | ..... | 635 | 635 |
| Pennsylvania | 3,932,579 | 225,339 | 4,157,918 | 574,957 | 18,130 | 593,087 | 4,751,005 | 7,519,545 | 469,851 | 7,989,396 |
| Delaware | 144,045 | ..... | 144,045 | 2,177 | ..... | 2,177 | 146,222 | 11,215 | ..... | 11,215 |
| Maryland | 5,172,550 | 1,571,560 | 6,744,110 | 90,751 | 34,194 | 124,945 | 6,869,055 | 3,777,086 | 265,829 | 4,042,915 |
| District of Columbia | 771,347 | 142,354 | 913,701 | 1,062 | 151 | 1,213 | 914,914 | 72,338 | 7,432 | 79,770 |
| Virginia | 3,245,539 | 283,424 | 3,528,963 | 336 | ..... | 336 | 3,529,299 | 202,884 | 6,128 | 209,004 |
| North Carolina | 384,040 | 30,358 | 414,398 | ..... | ..... | ..... | 414,398 | 239,333 | 3,526 | 242,859 |
| South Carolina | 4,610,505 | 2,219,030 | 6,829,535 | 2,367 | 16,575 | 18,942 | 6,848,477 | 833,294 | 69,242 | 902,536 |
| Georgia | 1,675,169 | 1,632,834 | 2,708,003 | ..... | ..... | ..... | 2,708,003 | 158,218 | 47,277 | 205.495 |
| Florida | 132,116 | 5,423 | 137,539 | 31,618 | 7,291 | 38,909 | 176,448 | 96,419 | 44,165 | 140,584 |
| Alabama | 3,159,550 | 2,100,767 | 5,260,317 | ..... | ..... | ..... | 5,260,317 | 119,368 | 140,239 | 259,607 |
| Louisiana | 21,929,201 | 8,818,332 | 30,747,533 | 287,099 | 241,072 | 528,171 | 31,275,704 | 6,027,281 | 1,195,809 | 7,223,090 |
| Mississippi | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 831 | ..... | 831 |
| Tennessee | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3,412 | ..... | 3,412 |
| Missouri | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 73,569 | ..... | 73,569 |
| Ohio | 208,333 | 144,287 | 352,630 | ..... | ..... | ..... | 352,630 | 98,985 | 3,729 | 102,714 |
| Kentucky | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 32,958 | ..... | 32,958 |
| Michigan | 251,890 | ..... | 251,890 | ..... | ..... | ..... | 251,890 | 154,406 | 522 | 154,928 |
| Texas | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 2,201 | 15,065 | 17,266 |
| Total | $78,634,410 | $23,507,483 | $102,141,893 | $7,915,765 | $3,430,858 | $11,346,623 | $113,488,516 | $106,008,173 | $15,683,624 | $121,691,797 |

## IMPORTS AND EXPORTS OF THE UNITED STATES, IN 1845–46.

*Statistical view of the Commerce of the United States, exhibiting the Value of Exports to, and Imports from each foreign country, during the year ending June 30, 1846.*

| Countries. | VALUE OF EXPORTS. Domestic produce. | For'n produce. | Total. | VALUE OF IMPORTS. |
|---|---|---|---|---|
| Russia | $535,388 | $97,079 | $632,467 | $1,570,054 |
| Prussia | 396,210 | 39,645 | 435,855 | 31,584 |
| Sweden and Norway | 362,792 | 39,545 | 402,337 | 724,865 |
| Swedish West Indies | 138,121 | 3,448 | 141,569 | 5,285 |
| Denmark | 97,746 | 23,496 | 121,242 | 1,313 |
| Danish West Indies | 959,452 | 166,464 | 1,125,916 | 752,614 |
| Hanse Towns | 4,008,315 | 600,305 | 4,608,620 | 3,149,864 |
| Hanover | ..... | ..... | ..... | ..... |
| Holland | 2,097,691 | 199,074 | 2,296,765 | 1,059,597 |
| Dutch East Indies | 40,700 | 42,842 | 83,542 | 480,353 |
| Dutch West Indies | 264,647 | 14,507 | 279,154 | 398,056 |
| Dutch Guiana | 66,845 | 1,139 | 67,984 | 33,674 |
| Belgium | 1,632,607 | 749,207 | 2,381,814 | 836,372 |
| England | 42,781,619 | 1,758,489 | 44,540,108 | 43,844,169 |
| Scotland | 1,642,330 | 45,416 | 1,688,746 | 1,230,086 |
| Ireland | 1,077,008 | 5,463 | 1,082,471 | 85,774 |
| Gibraltar | 463,241 | 129,651 | 592,892 | 27,806 |
| British East Indies | 270,600 | 99,772 | 370,372 | 1,361,345 |
| Mauritius | 26,356 | ..... | 26,356 | 22,923 |
| Australia | 48,783 | ..... | 48,783 | ..... |
| Cape of Good Hope | 23,713 | ..... | 23,713 | 81,686 |
| British West Indies | 4,915,083 | 32,474 | 4,947,557 | 833,678 |
| Brit. N. American Colonies | 6,042,666 | 1,363,767 | 7,406,433 | 1,937,717 |
| British Guiana | 551,668 | 1,634 | 553,302 | 12,561 |
| Honduras | 325,494 | 64,532 | 390,032 | 207,987 |
| Malta | 23,754 | 10,927 | 34,681 | 21,589 |
| France on the Atlantic | 12,702,972 | 1,337,477 | 14,040,449 | 23,608,589 |
| France on Mediterranean | 898,678 | 191,448 | 1,090,126 | 1,302,748 |
| French West Indies | 618,112 | 17,509 | 635,621 | 348,236 |
| French Guiana | 29,270 | 2,131 | 41,401 | 71,296 |
| Miquelon&French fish'ries | ..... | ..... | ..... | 18 |
| French African ports | 5,995 | ..... | 5,995 | ..... |
| Bourbon | 12,259 | ..... | 12,259 | ..... |
| Spain on the Atlantic | 345,442 | ..... | 345,442 | 147,363 |
| Spain on the Mediterranean | 82,325 | 47,718 | 130,153 | 864,416 |
| Teneriffe and oth. Canaries | 13,072 | 4,840 | 17,912 | 62,095 |
| Manilla and Philippine I'ds | 100,954 | 9,285 | 110,239 | 865,866 |
| Cuba | 4,713,966 | 773,170 | 5,487,136 | 6,159,632 |
| Other Spanish West Indies | 675,441 | 25,905 | 701,346 | 2,277,110 |
| Portugal | 96,316 | 8,453 | 104,769 | 378,250 |
| Madeira | 60,943 | 3,257 | 64,200 | 127,079 |
| Fayal and the Azores | 4,225 | ..... | 4,225 | 41,297 |
| Cape de Verd Islands | 31,097 | 685 | 31,782 | 857 |
| Italy | 942,263 | 424,652 | 1,366,915 | 1,189,786 |
| Sicily | 319,441 | 298,391 | 617,832 | 513,235 |
| Sardinia | 283,283 | 976 | 284,259 | ..... |
| Tuscany | ..... | ..... | ..... | ..... |
| Trieste and Adriatic ports | 1,104,468 | 366,143 | 1,470,611 | 379,719 |
| Turkey, Levant, &c. | 126,193 | 73,910 | 200,103 | 760,998 |
| Ionian Isles | ..... | ..... | ..... | ..... |
| Morocco | ..... | ..... | ..... | 4,554 |
| Texas | 250,240 | 223,363 | 473,603 | 183,058 |
| Mexico | 901,333 | 629,847 | 1,531,180 | 1,836,621 |
| Central America | 75,136 | 45,117 | 120,253 | 116,733 |
| New Grenada | 51,849 | 24,095 | 75,944 | 67,043 |
| Venezuela | 584,069 | 197,478 | 781,547 | 1,509,000 |
| Brazil | 2,754,012 | 389,383 | 3,143,395 | 7,441,803 |
| Argentine Republic | 147,307 | 38,118 | 185,425 | 799,313 |
| Cisplatine Republic | 210,406 | 15,498 | 225,904 | 26,472 |
| Chili | 1,539,136 | 229,434 | 1,768,570 | 1,275,960 |

VALUE OF IMPORTS AND EXPORTS—CONTINUED.

| Countries. | VALUE OF EXPORTS. Domestic produce. | For'gn produce. | Total. | VALUE OF IMPORTS. |
|---|---|---|---|---|
| Peru | ..... | ..... | ..... | $252,599 |
| Republic of Equador | ..... | $1,130 | $1,130 | ..... |
| China | $1,178,188 | 153,553 | 1,331,741 | 6,593,881 |
| Hayti | 1,114,013 | 43,129 | 1,157,142 | 1,542,962 |
| South America generally | 103,772 | ..... | 103,772 | ..... |
| West Indies generally | 127,461 | 190 | 127,651 | 12 |
| East Indies generally | ..... | ..... | ..... | ..... |
| Asia generally | 302,232 | 126,287 | 428,519 | 361,988 |
| Europe generally | ..... | ..... | ..... | ..... |
| Africa generally | 553,380 | 78,971 | 632,351 | 475,040 |
| Pacific Ocean | 278,705 | 76,198 | 354,903 | 153,029 |
| Sandwich Islands | ..... | ..... | ..... | 243,034 |
| Indian Ocean | ..... | ..... | ..... | ..... |
| Atlantic Ocean | ..... | ..... | ..... | 166 |
| Northwest Coast | ..... | ..... | ..... | ..... |
| Uncertain Places | ..... | ..... | ..... | ..... |
| Total | $102,141,893 | $11,396,623 | $113,488,516 | $121,691,797 |

## NAVIGATION OF THE UNITED STATES, IN 1845–46.

*Tonnage of American and Foreign Vessels arriving from, and departing to each foreign country, during the year ending June 30, 1846.*

| Countries. | AMERICAN TONNAGE. Entered U. States. | Cleared U. States. | FOREIGN TONNAGE. Ent'd U. States. | Cleared U.S. |
|---|---|---|---|---|
| Russia | 11,145 | 5,451 | 319 | 1,543 |
| Prussia | 419 | 1,176 | 1,375 | 7,275 |
| Sweden and Norway | 3,502 | 693 | 9,938 | 7,765 |
| Swedish West Indies | 653 | 2,329 | ..... | ..... |
| Denmark | ..... | 666 | 281 | 1,393 |
| Danish West Indies | 29,018 | 27,964 | 969 | 1,875 |
| Hanse Towns | 24,872 | 8,143 | 61,566 | 60,807 |
| Hanover | ..... | ..... | ..... | 366 |
| Holland | 21,903 | 23,585 | 5,729 | 11,582 |
| Dutch East Indies | 3,226 | 3,679 | ..... | ..... |
| Dutch West Indies | 13,935 | 5,047 | ..... | ..... |
| Dutch Guiana | 5,113 | 4,510 | ..... | ..... |
| Belgium | 12,714 | 23,375 | 5,823 | 6,527 |
| England | 374,137 | 364,149 | 198,373 | 183,942 |
| Scotland | 10,715 | 9,547 | 28,894 | 13,788 |
| Ireland | 6,940 | 14,748 | 28,279 | 6,804 |
| Gibraltar | 2,750 | 12,223 | ..... | 515 |
| British East Indies | 10,684 | 10,979 | ..... | 706 |
| Mauritius | ..... | 967 | ..... | ..... |
| Australia | ..... | ..... | ..... | ..... |
| Cape of Good Hope | 994 | 2,296 | ..... | ..... |
| British West Indies | 90,484 | 124,135 | 33,724 | 23,349 |
| Brit. N. American Colonies | 850,784 | 863,563 | 515,879 | 573,673 |
| British Guiana | 7,299 | 17,701 | 6,108 | 3,564 |
| Honduras | 5,359 | 9,620 | 64 | 607 |
| Malta | ..... | 882 | ..... | ..... |
| France on the Atlantic | 103,484 | 119,729 | 10,722 | 11,376 |
| France on Mediterranean | 10,070 | 14,950 | 2,992 | 740 |
| French West Indies | 20,849 | 31,698 | 5,275 | 1,761 |
| French Guiana | 1,754 | 1,390 | ..... | ..... |
| Miquelon & French fish'ries | ..... | 521 | ..... | ..... |
| French African ports | ..... | ..... | ..... | ..... |
| Bourbon | ..... | ..... | ..... | ..... |
| Spain on the Atlantic | 8,112 | 6,758 | 383 | 2,871 |
| Spain on the Mediterranean | 9,889 | 5,809 | 5,248 | 327 |
| Teneriffe and oth. Canaries | 1,683 | 645 | 791 | ..... |
| Manilla & Philippine Isles. | 8,297 | 3,030 | ..... | ..... |
| Cuba | 156,905 | 177,580 | 3,404 | 12,338 |

NAVIGATION OF THE UNITED STATES—CONTINUED.

| Countries. | AMERICAN TONNAGE. Entered U. States. | Cleared U. States. | FOREIGN TONNAGE. Ent'd U. States. | Cleared U.S. |
|---|---|---|---|---|
| Other Spanish West Indies | 51,284 | 30,056 | 487 | 1,373 |
| Portugal | 5,128 | 4,815 | 2,037 | 1,874 |
| Madeira | 1,060 | 3,535 | 396 | 577 |
| Fayal and the Azores | 1,612 | 152 | 202 | 151 |
| Cape de Verd Islands | 107 | 1,004 | ..... | 548 |
| Italy | 335 | 1,196 | ..... | ..... |
| Sicily | 21,798 | 767 | 3,742 | 4,318 |
| Sardinia | 454 | 9,865 | 1,468 | 1,191 |
| Tuscany | 3,387 | 343 | 1,412 | 255 |
| Trieste and Adriatic ports | 5,019 | 13,852 | 592 | 3,341 |
| Turkey, Levant, &c. | 7,171 | 3,208 | 1,477 | ..... |
| Ionian Isles | 228 | ..... | ..... | ..... |
| Morocco | ..... | ..... | ..... | ..... |
| Texas | 21,908 | 28,204 | 3,059 | 3,245 |
| Mexico | 22,410 | 14,224 | 4,539 | 3,964 |
| Central America | 2,423 | 957 | 107 | 214 |
| New Grenada | 1,699 | 1,069 | 180 | 293 |
| Venezuela | 13,370 | 11,125 | 1,219 | 1,244 |
| Brazil | 61,014 | 48,026 | 4,952 | 4,682 |
| Argentine Republic | 5,988 | 4,134 | 987 | ..... |
| Cisplatine Republic | 1,214 | 5,599 | ..... | 303 |
| Chili | 6,560 | 8,649 | 2,281 | 1,452 |
| Peru | 496 | 291 | ..... | ..... |
| Republic of Equador | ..... | ..... | ..... | 614 |
| China | 18,937 | 13,697 | 306 | ..... |
| Hayti | 30,264 | 23,425 | 803 | 1,642 |
| South America generally | 214 | 1,635 | 605 | ..... |
| West Indies generally | 111 | 11,221 | ..... | 886 |
| East Indies generally | ..... | 2,175 | ..... | ..... |
| Asia generally | 1,055 | 713 | ..... | ..... |
| Europe generally | ..... | 384 | ..... | ..... |
| Africa generally | 9,418 | 9,269 | 2,431 | 884 |
| Pacific Ocean | 37,465 | 41,977 | ..... | 400 |
| Sandwich Islands | 606 | 1,377 | 231 | ..... |
| Indian Ocean | 6,156 | 14,599 | ..... | ..... |
| Atlantic Ocean | 3,706 | 7,704 | ..... | ..... |
| Northwest Coast | 662 | 1,746 | ..... | ..... |
| Uncertain Places | 167 | 497 | ..... | ..... |
| Total | 2,151,114 | 2,221,028 | 959,739 | 968,178 |

## TONNAGE OF THE UNITED STATES, IN 1845–46.

*Statement exhibiting a condensed view of the Tonnage of the several Districts of the United States, on the 30th day of June, 1846, in tons and 95ths.*

| Districts. | Registered. | Enrolled and licensed. | Total of each district. |
|---|---|---|---|
| Passamaquoddy, Maine | 5,502 53 | 7,522 28 | 13,024 81 |
| Machias, " | 879 03 | 14,376 50 | 15,255 53 |
| Frenchman's Bay, " | 433 49 | 31,853 35 | 33,286 84 |
| Penobscot, " | 6,482 71 | 26,773 04 | 33,255 75 |
| Belfast, " | 11,410 34 | 31,487 69 | 42,898 08 |
| Waldoborough, " | 15,871 76 | 44,186 36 | 60,058 17 |
| Wiscasset, " | 5,004 62 | 12,031 04 | 17,035 66 |
| Bath, " | 42,485 67 | 21,730 62 | 64,216 34 |
| Portland, " | 45,891 80 | 20,344 05 | 66,235 85 |
| Saco, " | 1,103 20 | 2,169 90 | 3,273 15 |
| Kennebunk, " | 6,496 73 | 1,998 50 | 8,495 28 |
| York, " | ..... | 1,087 28 | 1,087 28 |
| Portsmouth, New Hampshire | 11,503 11 | 8,805 29 | 20,708 40 |
| Burlington, Vermont | ..... | 2,048 19 | 2,048 19 |
| Newburyport, Massachusetts | 16,541 08 | 5,865 06 | 22,406 14 |
| Ipswich, " | ..... | 832 58 | 832 58 |

TONNAGE OF THE UNITED STATES—CONTINUED.

| Districts. | Registered. | Enrolled and licensed. | Total of each district. |
|---|---|---|---|
| Gloucester, Massachusetts | 2,174 39 | 15,927 26 | 18,101 65 |
| Salem, " | 18,444 03 | 9,868 79 | 28,312 82 |
| Beverly, " | ..... | 2,095 67 | 2,095 67 |
| Marblehead, " | 60 53 | 6,319 11 | 6,379 64 |
| Boston, " | 192,879 10 | 47,293 73 | 240,172 83 |
| Plymouth, " | 4,492 15 | 7,575 93 | 12,068 13 |
| Fall River, " | 3,008 19 | 6,063 02 | 9,071 21 |
| New Bedford, " | 108,553 70 | 8,603 25 | 117,157 00 |
| Barnstable, " | 5,414 92 | 40,979 72 | 46,394 69 |
| Edgartown, " | 5,522 48 | 1,273 88 | 6,796 41 |
| Nantucket, " | 26,282 60 | 4,448 57 | 31,731 22 |
| Providence, Rhode Island | 14,354 43 | 7,617 30 | 21,971 73 |
| Bristol, " | 13,705 67 | 2,419 09 | 16,124 76 |
| Newport, " | 6,692 85 | 4,648 09 | 11,340 94 |
| Middletown, Connecticut | 502 84 | 10,639 76 | 11,142 65 |
| New London, " | 29,473 07 | 10,102 71 | 39,575 78 |
| Stonington, " | 13,740 90 | 5,516 54 | 19,257 49 |
| New Haven, " | 5,068 87 | 6,884 23 | 11,953 15 |
| Fairfield, " | 1,227 45 | 15,866 33 | 17,093 78 |
| Champlain, New York | ..... | 3,192 34 | 3,192 34 |
| Sackett's Harbor, " | ..... | 4,279 09 | 4,279 09 |
| Oswego, " | ..... | 16,046 36 | 16,046 36 |
| Niagara, " | ..... | 75 42 | 75 42 |
| Genesee, " | ..... | 767 79 | 767 79 |
| Oswegatchie, " | ..... | 2,058 51 | 2,058 51 |
| Buffalo, " | ..... | 24,770 29 | 24,770 29 |
| Sag Harbor, " | 23,679 19 | 6,073 66 | 29,752 85 |
| New York, " | 260,896 36 | 311,626 34 | 572,522 70 |
| Cape Vincent, " | ..... | 2,230 32 | 2,230 32 |
| Perth Amboy, N. Jersey | ..... | 19,738 00 | 19,738 00 |
| Bridgetown, " | 627 82 | 10,455 60 | 11,083 47 |
| Burlington, " | ..... | 5,935 34 | 4,935 34 |
| Camden, " | ..... | 7,432 06 | 7,432 06 |
| Newark, " | 364 79 | 17,238 05 | 17,602 84 |
| Little Egg Harbor, " | ..... | 5,129 91 | 5,129 91 |
| Great Egg Harbor, " | ..... | 9,094 35 | 9,094 35 |
| Philadelphia, Pennsylvania, | 39,673 93 | 88,228 21 | 127,902 19 |
| Presque Isle, " | ..... | 2,883 15 | 2,993 15 |
| Pittsburgh, " | ..... | 11,162 94 | 17,162 94 |
| Wilmington, Delaware | 1,652 38 | 4,802 33 | 6,454 71 |
| Newcastle, " | ..... | 5,382 54 | 5,382 54 |
| Baltimore, Maryland, | 51,241 34 | 40,901 79 | 92,143 18 |
| Oxford, " | ..... | 8,870 60 | 8,870 60 |
| Vienna, " | ..... | 14,507 55 | 14,507 55 |
| Snow Hill, " | ..... | 7,213 74 | 7,213 74 |
| St. Mary's, " | ..... | 1,857 47 | 1,857 47 |
| Town Creek, " | ..... | 1,595 80 | 1,595 80 |
| Annapolis, " | 193 12 | 2,071 37 | 2,264 49 |
| Georgetown, District of Columbia | 2,153 67 | 9,211 45 | 11,365 17 |
| Alexandria, " " | 6,346 09 | 4,644 07 | 10,990 16 |
| Norfolk, Virginia | 10,433 63 | 11,210 90 | 21,644 58 |
| Petersburg, " | 948 45 | 810 73 | 1,759 23 |
| Richmond, " | 3,371 13 | 3,293 12 | 6,664 25 |
| Yorktown, " | ..... | 2,630 14 | 2,630 14 |
| East River, " | ..... | 4,072 51 | 4,072 51 |
| Tappahannock, " | 988 02 | 4,743 10 | 5,731 12 |
| Accomac C.H., " | ..... | 3,378 69 | 3,378 69 |
| Yeocomico, " | ..... | 3,432 10 | 3,432 10 |
| Cherrystone, " | 62 52 | 1,505 14 | 1,557 66 |
| Wheeling, " | ..... | 2,660 76 | 2,660 76 |
| Wilmington, North Carolina | 12,134 48 | 4,086 61 | 16,221 14 |
| Newbern, " | 1,213 80 | 2,763 42 | 3,977 27 |

TONNAGE OF THE UNITED STATES—CONTINUED.

| Districts. | Registered. | Enrolled and licensed. | Total of each district. |
|---|---|---|---|
| Washington, North Carolina | 839 76 | 3,033 86 | 3,873 67 |
| Edenton, " | 577 58 | 437 30 | 1,014 88 |
| Camden, " | 638 75 | 9,014 09 | 9,652 84 |
| Beaufort, " | 422 52 | 1,264 40 | 1,686 92 |
| Plymouth, " | 1,251 88 | 893 85 | 2,145 78 |
| Ocracoke, " | 1,386 67 | 1,265 17 | 2,651 84 |
| Charleston, South Carolina | 8,124 88 | 10,081 44 | 18,206 37 |
| Georgetown, " | 390 80 | 1,339 18 | 1,730 03 |
| Savannah, Georgia | 7,282 71 | 8,853 68 | 16,136 44 |
| Brunswick, " | ..... | 147 84 | 147 84 |
| St. Mary's, " | 1,238 49 | 587 75 | 1,826 29 |
| Pensacola, Florida | 1,227 33 | 1,603 64 | 2,831 02 |
| St. Augustine, " | 360 55 | 149 69 | 510 29 |
| Apalachicola, " | 1,223 93 | 3,333 63 | 4,557 61 |
| St. Mark's, " | 92 46 | 74 36 | 166 82 |
| St. John's, " | ..... | 157 71 | 157 71 |
| Key West, " | 2,633 61 | 1,008 90 | 3,642 56 |
| Mobile, Alabama | 6,496 21 | 16,041 24 | 22,537 45 |
| Pearl River, Mississippi | ..... | 1,055 43 | 1,055 43 |
| New Orleans, Louisiana | 55,511 65 | 124,993 16 | 180,504 81 |
| Teché, " | ..... | 753 58 | 753 58 |
| Nashville, Tennessee | ..... | 2,809 23 | 2,809 23 |
| Louisville, Kentucky | ..... | 8,172 25 | 8,172 25 |
| St. Louis, Missouri | ..... | 22,425 91 | 22,425 91 |
| Cuyahoga, Ohio | ..... | 18,526 57 | 18,526 57 |
| Sandusky, " | ..... | 2,914 42 | 2,914 42 |
| Cincinnati, " | ..... | 15,312 86 | 15,312 86 |
| Miami, " | ..... | 3,163 44 | 3,163 44 |
| Detroit, Michigan | ..... | 24,848 11 | 24,848 11 |
| Michilimackinac, " | ..... | 1,104 79 | 1,104 79 |
| Total | 1,130,286 49 | 1,431,798 32 | 2,562,084 81 |

## VESSELS BUILT IN EACH STATE, IN 1845–46.

*Statement of the number and class of Vessels built, and the tonnage thereof, in each State and Territory of the United States, during the year ending September* 30, 1846.

| States. | Ships. | Brigs. | Sch'rs. | Sloops. | St'mboats. | Total. | Total tonnage. |
|---|---|---|---|---|---|---|---|
| Maine | 47 | 97 | 140 | 2 | 3 | 289 | 49,447 60 |
| New Hampshire | 3 | 2 | 3 | ..... | ..... | 8 | 2,171 08 |
| Massachusetts | 26 | 26 | 108 | 4 | 4 | 160 | 24,321 43 |
| Rhode Island | 4 | ..... | 4 | 2 | ..... | 10 | 2,394 56 |
| Connecticut | 1 | 3 | 26 | 5 | ..... | 35 | 3,712 32 |
| New York | 11 | 8 | 46 | 179 | 25 | 260 | 33,253 37 |
| New Jersey | 1 | 1 | 25 | 26 | 7 | 60 | 5,856 19 |
| Pennsylvania | 2 | 2 | 15 | 87 | 55 | 161 | 15,787 59 |
| Delaware | ..... | 1 | 12 | 6 | 3 | 22 | 2,264 13 |
| Maryland | 4 | 18 | 109 | 3 | 3 | 137 | 13,817 64 |
| District of Columbia | ..... | ..... | ..... | 23 | ..... | 23 | 951 20 |
| Virginia | ..... | 2 | 26 | 6 | 11 | 45 | 3,465 22 |
| North Carolina | ..... | ..... | 26 | 4 | 1 | 31 | 1,884 83 |
| South Carolina | ..... | ..... | 4 | ..... | ..... | 4 | 342 00 |
| Georgia | ..... | ..... | ..... | 1 | ..... | 1 | 21 45 |
| Ohio | ..... | 1 | 13 | 4 | 34 | 52 | 9,615 50 |
| Tennessee | ..... | ..... | ..... | ..... | 4 | 4 | 574 59 |
| Kentucky | ..... | ..... | ..... | ..... | 46 | 46 | 8,661 47 |
| Missouri | ..... | ..... | ..... | ..... | 11 | 11 | 2,338 02 |
| Alabama | ..... | ..... | ..... | 1 | 3 | 4 | 557 92 |
| Louisiana | ..... | ..... | 2 | 4 | 2 | 8 | 451 35 |
| Michigan | 1 | 3 | 14 | 7 | 8 | 33 | 5,174 01 |
| Florida | ..... | ..... | 3 | ..... | 5 | 8 | 840 35 |
| Total | 100 | 164 | 576 | 355 | 225 | 1,420 | 188,203 93 |

## TONNAGE ENTERED INTO EACH OF THE UNITED STATES, IN 1845–46.

| States. | AMERICAN. | | | | FOREIGN. | | | | TOTAL AMERICAN AND FOREIGN. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Tons. | CREWS. | | No. | Tons. | CREWS. | | No. | Tons. | CREWS. | |
| | | | Men. | Boys. | | | Men. | Boys. | | | Men. | Boys. |
| Maine | 324 | 60,109 | 2,401 | 109 | 901 | 70,938 | 4,100 | 82 | 1,225 | 131,047 | 6,501 | 191 |
| New Hampshire | 6 | 2,513 | 85 | 5 | 53 | 3,385 | 180 | ..... | 59 | 5,898 | 265 | 5 |
| Vermont | 304 | 76,125 | 5,430 | 50 | ..... | ..... | ..... | ..... | 304 | 76,125 | 5,430 | 50 |
| Massachusetts | 1,178 | 287,683 | 13,059 | 309 | 1,788 | 134,537 | 9,379 | 3 | 2,966 | 422,220 | 22,438 | 312 |
| Rhode Island | 84 | 17,884 | 833 | 40 | 3 | 221 | 16 | ..... | 87 | 18,105 | 854 | 40 |
| Connecticut | 122 | 25,494 | 1,419 | 16 | 54 | 6,017 | 322 | 1 | 176 | 31,511 | 1,741 | 17 |
| New York | 3,969 | 1,198,734 | 61,738 | 972 | 1,963 | 431,366 | 28,088 | 247 | 5,932 | 1,630,100 | 89,826 | 1,219 |
| New Jersey | ..... | ..... | ..... | ..... | 1 | 132 | 6 | ..... | 1 | 132 | 6 | ..... |
| Pennsylvania | 346 | 78,843 | 3,236 | 255 | 53 | 9,268 | 419 | 60 | 399 | 88,111 | 3,655 | 315 |
| Delaware | 5 | 593 | 35 | 1 | ..... | ..... | ..... | ..... | 5 | 593 | 35 | 1 |
| Maryland | 319 | 65,563 | 2,982 | ..... | 111 | 24,343 | 1,194 | ..... | 430 | 89,906 | 4,176 | ..... |
| District of Columbia | 32 | 5,923 | 281 | 8 | 25 | 2,921 | 162 | 2 | 57 | 8,844 | 423 | 10 |
| Virginia | 72 | 11,945 | 559 | 1 | 17 | 2,967 | 147 | ..... | 89 | 14,912 | 706 | 1 |
| North Carolina | 185 | 26,474 | 1,283 | 6 | 24 | 3,029 | 170 | ..... | 209 | 29,503 | 1,453 | 6 |
| South Carolina | 162 | 33,096 | 1,429 | 9 | 76 | 25,622 | 964 | 188 | 238 | 58,718 | 2,393 | 197 |
| Georgia | 59 | 13,444 | 564 | ..... | 77 | 44,516 | 1,612 | ..... | 136 | 57,960 | 2,176 | ..... |
| Florida | 101 | 8,078 | 566 | ..... | 30 | 1,071 | 253 | ..... | 131 | 9,149 | 819 | ..... |
| Alabama | 69 | 24,722 | 877 | ..... | 89 | 52,468 | 1,897 | ..... | 158 | 77,190 | 2,774 | ..... |
| Louisiana | 656 | 203,813 | 7,707 | ..... | 261 | 111,874 | 4,534 | ..... | 922 | 315,787 | 12,241 | ..... |
| Mississippi | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Tennessee | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Missouri | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Ohio | 99 | 7,866 | 561 | ..... | 41 | 4,818 | 250 | ..... | 140 | 12,684 | 811 | ..... |
| Kentucky | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Michigan | 16 | 1,327 | 87 | ..... | 122 | 26,694 | 1,114 | ..... | 138 | 28,021 | 1,201 | ..... |
| Texas | 3 | 785 | 48 | ..... | 13 | 3,552 | 186 | ..... | 16 | 4,337 | 234 | ..... |
| Total | 8,111 | 2,151,114 | 105,165 | 1,781 | 5,707 | 959,739 | 54,993 | 583 | 13,818 | 3,110,853 | 160,158 | 2,364 |

## TONNAGE CLEARED FROM EACH OF THE UNITED STATES, IN 1845–46.

| States. | AMERICAN. | | | | FOREIGN. | | | | TOTAL AMERICAN AND FOREIGN. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. | Tons. | CREWS. | | No. | Tons. | CREWS. | | No. | Tons. | CREWS. | |
| | | | Men. | Boys. | | | Men. | Boys. | | | Men. | Boys. |
| Maine | 540 | 96,739 | 3,922 | 206 | 945 | 72,053 | 4,134 | 89 | 1,485 | 168,792 | 8,056 | 295 |
| New Hampshire | 4 | 893 | 38 | 14 | 54 | 3,413 | 194 | ..... | 58 | 4,306 | 232 | 14 |
| Vermont | 319 | 79,766 | 5,444 | 70 | ..... | ..... | ..... | ..... | 319 | 79,766 | 5,444 | 70 |
| Massachusetts | 1,069 | 237,384 | 11,716 | 112 | 1,801 | 137,117 | 7,864 | 2 | 2,870 | 374,501 | 10,580 | 114 |
| Rhode Island | 89 | 18,257 | 933 | 48 | 5 | 785 | 40 | ..... | 94 | 19,042 | 973 | 48 |
| Connecticut | 138 | 31,131 | 2,037 | 89 | 53 | 5,937 | 329 | 1 | 191 | 37,068 | 2,366 | 90 |
| New York | 3,714 | 1,120,944 | 60,061 | 1,173 | 1,922 | 425,942 | 28,105 | 241 | 5,636 | 1,546,886 | 88,166 | 1,414 |
| New Jersey | 1 | 181 | 6 | ..... | ..... | ..... | ..... | ..... | 1 | 181 | 6 | ..... |
| Pennsylvania | 377 | 77,272 | 2,298 | 196 | 47 | 7,627 | 379 | 36 | 424 | 84,899 | 2,677 | 232 |
| Delaware | 21 | 3,495 | 169 | 2 | ..... | ..... | ..... | ..... | 21 | 3,495 | 169 | 2 |
| Maryland | 405 | 88,404 | 3,781 | ..... | 128 | 30,887 | 1,452 | ..... | 533 | 119,291 | 5,233 | ..... |
| District of Columbia | 89 | 15,390 | 672 | 11 | 28 | 3,502 | 190 | 3 | 117 | 18,892 | 862 | 14 |
| Virginia | 227 | 48,571 | 2,084 | ..... | 30 | 7,103 | 339 | ..... | 257 | 55,674 | 2,423 | ..... |
| North Carolina | 260 | 38,471 | 1,813 | 1 | 30 | 3,791 | 204 | ..... | 290 | 42,262 | 2,017 | 1 |
| South Carolina | 206 | 50,514 | 2,055 | 25 | 85 | 27,579 | 1,039 | 173 | 291 | 78,093 | 3,094 | 198 |
| Georgia | 54 | 13,493 | 539 | ..... | 77 | 44,748 | 1,556 | ..... | 131 | 58,241 | 2,095 | ..... |
| Florida | 87 | 8,159 | 515 | ..... | 26 | 1,413 | 241 | ..... | 113 | 9,572 | 756 | ..... |
| Alabama | 110 | 46,044 | 1,553 | ..... | 88 | 51,007 | 1,862 | ..... | 198 | 97,051 | 3,415 | ..... |
| Louisiana | 640 | 238,463 | 8,487 | ..... | 274 | 110,023 | 4,383 | ..... | 914 | 348,486 | 11,870 | ..... |
| Mississippi | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Tennessee | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Missouri | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Ohio | 87 | 6,222 | 414 | ..... | 41 | 4,831 | 265 | ..... | 128 | 11,053 | 679 | ..... |
| Kentucky | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Michigan | 12 | 540 | 64 | ..... | 126 | 27,920 | 1,198 | ..... | 138 | 28,460 | 1,262 | ..... |
| Texas | 2 | 695 | 40 | ..... | 10 | 2,500 | 121 | ..... | 12 | 3,195 | 161 | ..... |
| Total | 8,451 | 2,221,028 | 108,641 | 1,947 | 5,770 | 968,178 | 53,895 | 545 | 14,221 | 3,189,206 | 162,536 | 2,492 |

## UNITED STATES IMPORT AND CONSUMPTION OF SUGAR.

For the following statements of the quantity of sugar imported and consumed annually, in the United States, for the last forty-six years, we are indebted to the kindness of EDWARD TREMAYNE, Esq., of Washington, who was permitted to copy it from the books of the Treasury Department, for publication in the Merchants' Magazine. The table, it will be seen, not only exhibits the quantity imported and consumed, but the rate of duty under the several tariffs, and the total amount of duty paid in each year, from 1801 to 1846.

QUANTITY OF SUGAR IMPORTED AND CONSUMED, ANNUALLY, FROM 1801 TO 1846, INCLUSIVE, TOGETHER WITH THE DUTY WHICH ACCRUED ON THE SAME.

| | SUGAR CONSUMED. | | | RATES OF DUTY. | | |
|---|---|---|---|---|---|---|
| Years. | Brown. | Clayed. | Total. | Brown. | Clayed. | Duty. |
| 1801..lbs. | 47,417,397 | 464,979 | 47,882,376 | 2½cts. | 3 cts. | $1,199,384 29 |
| 1802..... | 41,511,762 | ..... | 39,443,814 | ... | ... | 975,755 61 |
| 1803..... | 48,394,771 | 2,672,163 | 51,066,934 | ... | ... | 1,290,034 16 |
| 1804..... | 53,828,275 | 1,241,738 | 55,070,013 | ... | ... | 1,382,959 01 |
| 1805..... | 58,885,220 | 9,161,645 | 68,046,865 | ... | ... | 1,746,979 85 |
| 1806..... | 71,271,927 | 2,046,722 | 73,318,640 | ... | ... | 1,843,199 84 |
| 1807..... | 55,924,457 | 9,877,359 | 65,801,816 | ... | ... | 1,694,432 20 |
| 1808..... | 65,223,807 | 19,629,826 | 84,853,633 | ... | ... | 2,219,489 96 |
| 1809..... | 19,502,914 | ..... | 12,381,330 | ... | ... | 273,925 03 |
| 1810..... | 27,142,626 | 2,169,681 | 29,312,307 | ... | ... | 743,656 08 |
| 1811..... | 53,647,571 | 1,684,743 | 55,332,314 | ... | ... | 1,391,731 56 |
| 1812..... | 56,229,071 | 3,937,011 | 60,166,082 | 5 | 6 | 2,058,121 73 |
| 1813..... | 28,201,788 | 3,162,538 | 31,364,276 | ... | ... | 1,619,565 02 |
| 1814..... | 18,432,512 | 2,237,656 | 20,670,168 | ... | ... | 1,055,884 96 |
| 1815..... | 49,988,078 | 4,744,685 | 54,732,763 | ... | ... | 2,784,085 00 |
| 1816..... | 32,588,239 | 2,799,724 | 35,387,963 | 3 | 4 | 1,150,176 43 |
| 1817..... | 62,425,833 | 3,165,469 | 65,591,302 | ... | ... | 1,998,093 81 |
| 1818..... | 48,250,688 | 3,034,295 | 51,284,983 | ... | ... | 1,568,892 44 |
| 1819..... | 68,491,275 | 3,174,126 | 71,665,401 | ... | ... | 2,181,703 29 |
| 1820..... | 48,617,029 | 2,920,859 | 51,537,888 | ... | ... | 1,575,345 23 |
| 1821..... | 40,631,396 | 2,453,423 | 43,084,819 | ... | ... | 1,315,143 40 |
| 1822..... | 70,332,928 | 6,619,510 | 76,952,438 | ... | ... | 2,374,768 24 |
| 1823..... | 42,137,421 | 1,172,054 | 43,309,475 | ... | ... | 1,311,004 79 |
| 1824..... | 73,077,821 | 5,408,837 | 78,486,658 | ... | ... | 2,408,688 11 |
| 1825..... | 44,239,180 | 3,264,853 | 47,504,033 | ... | ... | 1,457,769 51 |
| 1826..... | 69,112,185 | 4,339,414 | 73,451,599 | ... | ... | 2,246,942 11 |
| 1827..... | 52,309,013 | 2,814,502 | 55,123,515 | ... | ... | 1,681,850 47 |
| 1828 ..... | 44,959,621 | 4,118,185 | 49,077,806 | ... | ... | 1,513,516 03 |
| 1829..... | 47,832,037 | 3,232,470 | 51,064,507 | ... | ... | 1,564,259 91 |
| 1830..... | 89,507,714 | 6,879,644 | 96,387,358 | ... | ... | 2,960,417 18 |
| 1831..... | 65,304,411 | 4,654,276 | 69,958,687 | ... | ... | 2,145,303 37 |
| 1832..... | 46,194,798 | 2,271,040 | 48,465,838 | 2½ | 3½ | 1,476,685 54 |
| 1833..... | 90,083,811 | 9,130,543 | 99,814,354 | ... | ... | 2,570,425 39 |
| 1834..... | 96,447,915 | 4,977,412 | 101,425,327 | ... | ... | 2,416,052 33 |
| 1835..... | 108,020,863 | 10,781,587 | 118,802,450 | ... | ... | 2,881,032 46 |
| 1836..... | 150,813,701 | 6,400,291 | 157,213,992 | ... | ... | 3,596,234 56 |
| 1837..... | 92,540,615 | 2,547,171 | 95,087,786 | ... | ... | 2,113,848 12 |
| 1838..... | 134,697,831 | 7,556,988 | 142,254,819 | ... | ... | 2,943,566 22 |
| 1839..... | 176,352,785 | 5,860,027 | 182,212,812 | ... | ... | 3,798,605 79 |
| 1840..... | 98,164,329 | 3,902,912 | 102,067,241 | ... | ... | 1,915,676 38 |
| 1841..... | 163,907,516 | 8,477,913 | 172,385,429 | 2½ | 4 | 3,255,003 48 |
| 1842..... | 150,098,832 | 10,202,894 | 160,301,726 | ... | ... | 1,961,697 30 |
| 1843..... | 67,997,855 | 805,225 | 68,800,080 | ... | ... | 1,732,155 37 |
| 1844..... | 178,309,526 | 3,483,859 | 182,793,385 | ... | ... | 4,597,092 51 |
| 1845..... | 100,758,315 | 902,935 | 101,661,250 | ... | ... | 2,555,075 28 |
| 1846..... | 107,384,247 | 731,489 | 108,115,736 | ... | ... | 2,713,865 74 |

## PHILADELPHIA IMPORTS AND DUTIES, SINCE 1830.

The following statement, showing the value of imports into the port of Philadelphia, and the amount of duties accruing thereon to the United States, has been carefully prepared from official records:—

| Years. | Total imports. | Duties. | Years. | Total imports. | Duties. |
|---|---|---|---|---|---|
| | $ | $ | | $ | $ |
| 1830,..... | 9,525,893 | 3,537,516 10 | 1840,..... | 8,624,484 | 1,517,906 70 |
| 1831,..... | 11,673,755 | 4,372,525 98 | 1841,..... | 9,948,598 | 1,983,681 64 |
| 1832,..... | 10,048,195 | 3,500,292 50 | 1842,..... | 6,201,177 | 1,812,842 82 |
| 1833,..... | 11,153,757 | 2,985,095 50 | 1843,..... | 4,916,535 | 1,437,837 84 |
| 1834,..... | 10,686,058 | 2,110,477 32 | 1844,..... | 8,410,864 | 2,981,573 15 |
| 1835,..... | 11,868,529 | 2,501,621 43 | 1845,..... | 7,494,497 | 2,370,517 71 |
| 1836,..... | 16,116,625 | 3,146,458 43 | 1846, 1st q'rter, | 2,482,044 | 779,776 13 |
| 1837,..... | 10,130,838 | 1,820,993 21 | " 2d " | 2,047,528 | 690,114 51 |
| 1838,..... | 10,417,815 | 2,109,955 30 | " 3d " | 2,330,527 | 750,504 52 |
| 1839,..... | 14,753,589 | 2,884,984 16 | | | |

IMPORT OF HIDES.

During the year 1846, the import of hides into the port of Philadelphia, from foreign ports, were—

| | |
|---|---|
| From La Guayra and Porto Cabello,.....hides | 42,883 |
| West Indies and Spanish Main,..... ..... | 18,089 |
| Bahia and Pernambuco,..... | 17,041 |

## DOMESTIC EXPORTS OF PHILADELPHIA IN 1845–46.

The following is a statement of the amount and value of the leading articles of domestic produce, exported from the port of Philadelphia, in the two years ending 30th of December:—

| | 1846. | | 1845. | |
|---|---|---|---|---|
| | Amount. | Value. | Amount. | Value. |
| Wheat Flour,.....bbls. | 366,712 | $1,770,306 | 200,643 | $980,339 |
| Rye Flour,..... | 21,572 | 71,965 | 17,132 | 58,203 |
| Corn Meal,..... | 168,817 | 469,686 | 113,195 | 276,547 |
| Ship Bread,..... | 36,731 | 100,801 | 31,340 | 90,687 |
| Wheat,.....bush. | 231,615 | 251,234 | 84,717 | 95,711 |
| Corn,..... | 279,771 | 199,386 | 128,316 | 74,992 |
| Cotton,.....bales | 637,651 | 52,814 | 631,930 | 51,474 |
| Rice,.....cks. | 1,709 | 42,436 | 1,173 | 24,215 |
| Tobacco,.....hhds. | 750 | 45,078 | 381 | 22,334 |
| Total value in 1846,... | | $3,003,706 | | $1,574,502 |
| " 1845,... | | 1,574,502 | | |
| Increase in 1846,..... | | $1,420,204 | | |

## BRIGHTON CATTLE MARKET.

The following table indicates the number of each kind of cattle, and the aggregate value, sold at the Brighton market annually, for a series of years:—

| | Beeves. | Stores. | Sheep. | Swine. | Value. |
|---|---|---|---|---|---|
| 1835..... | 51,096 | 15,872 | 98,160 | 23,142 | $1,878,032 |
| 1836..... | 38,504 | 11,858 | 82,830 | 15,667 | 1,858,202 |
| 1837..... | 31,644 | 16,216 | 110,206 | 17,052 | 2,449,231 |
| 1838..... | 25,830 | 9,573 | 104,640 | 26,164 | 2,058,004 |
| 1839..... | 23,263 | 15,252 | 95,400 | 26,088 | 1,901,864 |
| 1840..... | 34,160 | 12,736 | 128,650 | 32,350 | 1,990,577 |
| 1841..... | 36,607 | 18,794 | 124,172 | 31,872 | 2,400,881 |
| 1842..... | 32,070 | 17,126 | 106,655 | 39,935 | 1,741,740 |
| 1843..... | 32,915 | 10,005 | 98,820 | 43,060 | 1,685,332 |
| 1844..... | 37,610 | 4,236 | 92,274 | 62,740 | 1,689,374 |
| 1845..... | 48,910 | 13,275 | 107,960 | 56,580 | 1,893,648 |
| 1846..... | 38,670 | 15,164 | 105,350 | 44,940 | 1,871,113 |

## AMERICAN EAST INDIA AND PACIFIC TRADE.

A correspondent of the American (Boston) Traveller, furnishes the following schedule of arrivals and clearances at different ports in the United States, which have been and are now engaged in the East India and Pacific trade, not including the whalemen which are engaged in the Pacific, but of merchant vessels, trading to ports at and beyond the Cape of Good Hope, and to ports beyond Cape Horn.

The whole number of arrivals, engaged in the above trade, has been, for the year ending December 31, 1846, 140; of which, there were

| | | | |
|---|---|---|---|
| At Boston, | 64 | At Salem, | 12 |
| New York, | 59 | Baltimore, | 5 |

The 64 arrivals at Boston, were from—

| | | | |
|---|---|---|---|
| Calcutta, | 21 | Padang, | 1 |
| Manilla, | 11 | Zanzibar, | 2 |
| Batavia, | 8 | Sumatra, | 2 |
| Canton and Manilla, | 1 | Canton, via Rotterdam, | 1 |
| Valparaiso, | 7 | Batavia, via Amsterdam, | 2 |
| Cape Town, Cape Good Hope, | 3 | Columbia River, | 1 |
| California, | 2 | Realaja, W. C. America, | 1 |
| Pulo Pénang, | 2 | | |

The 59 arrivals from New York, were from—

| | | | |
|---|---|---|---|
| Canton, | 41 | Manilla, | 4 |
| Sumatra, | 1 | Zanzibar, | 1 |
| Batavia, | 1 | Sandwich Islands, | 1 |
| Calcutta, | 3 | New Zealand, | 1 |
| Valparaiso, | 5 | Coquimbo, | 1 |

Of the 41 arrivals at New York from Canton, 18 belonged to ports East of New York, viz: 15 to Boston, and 3 to Salem; and of the whole number of arrivals at the port, during the year, from India, 29 belonged to ports East of there. The vessel from New Zealand was ordered to Salem, where she discharged her cargo.

The 12 arrivals at Salem, were from—

| | | | |
|---|---|---|---|
| Zanzibar, | 7 | Sumatra, | 2 |
| Manilla, | 2 | Pulo Penang, | 1 |

The 5 arrivals at Baltimore, were from—

| | | | |
|---|---|---|---|
| Valparaiso, | 1 | Talcuhuana, | 1 |
| Coquimbo, | 1 | Payta, | 1 |
| Arica, Peru, | 1 | | |

During the year ending December 31, 1846, the whole number of vessels which cleared for ports in the Pacific, and to ports in the East Indies, from different ports in the United States, was 139, viz:—

| | | | |
|---|---|---|---|
| Boston, | 73 | Newburyport, | 2 |
| New York, | 43 | Bangor, | 1 |
| Salem, | 11 | New Orleans, | 1 |
| Baltimore, | 8 | | |

The 73 clearances at Boston, were for—

| | | | |
|---|---|---|---|
| Calcutta, | 11 | Batavia, | 6 |
| do. via Madras, | 5 | do. via Cape Town, | 1 |
| do. via Bombay, | 4 | Mauritius and market, | 2 |
| do. via Maulmein, | 1 | Valparaiso, | 9 |
| do. via Cape Good Hope, | 1 | Sandwich Islands, | 3 |
| do. via Cape de Verds, | 1 | Cape Town and market, | 6 |
| do. via Liverpool, | 2 | New Zealand, | 1 |
| Bombay and Canton, | 1 | Zanzibar, | 1 |
| Canton, | 6 | Pulo Penang, | 2 |
| do. via Liverpool, | 1 | Realaja, W. C. America, | 1 |
| do. via Batavia, | 1 | do. via Liverpool, | 1 |
| Manilla, | 6 | | |

The 43 clearances at New York, were for—

| | | | |
|---|---|---|---|
| Canton, | 17 | Manilla, | 1 |
| do. via Liverpool, | 1 | California, | 2 |
| Zanzibar, | 1 | Sandwich Islands, | 1 |
| Columbia River, | 4 | Sumatra, | 1 |
| Batavia, via Cape Good Hope, | 1 | Manilla, via Liverpool, | 1 |
| Callao, | 1 | Batavia, | 1 |
| Valparaiso and California, | 1 | Canton, via Rio Janeiro, | 1 |
| Valparaiso, | 4 | Hobart Town, V. D. Land | 1 |
| Mauritius, | 1 | Cape Town, via Rio Janeiro, | 1 |
| Batavia and Canton, | 1 | | |

The 11 clearances at Salem, were for—

| | | | |
|---|---|---|---|
| Manilla, | 1 | Sumatra, | 2 |
| Zanzibar, | 4 | Fejee Islands, | 2 |
| Pulo Penang, | 1 | | |

The 8 clearances at Baltimore, were for—

| | | | |
|---|---|---|---|
| Valparaiso, | 6 | Canton, | 2 |

The clearance at Newburyport, was for Oregon; the two at Bangor, for Valparaiso; and the one at New Orleans, for the Sandwich Islands.

In 1845, the whole number of arrivals of vessels, engaged in the above trade, was 128, making an increase the last year of 11.

The same year, clearances were 150, making a decrease of 11 the past year.

There has been an increase of arrivals at Boston, over that of the year 1845, of 16, and a decrease of 10 in the clearances.

At New York, the decrease of arrivals has been 3, and the decrease of clearances, 6.

## EXPORTS OF SUGAR AND MOLASSES FROM HAVANA.

The following table shows the exports of sugar and molasses from Havana, from the 1st of January to the 31st of December, in the year 1845 and 1846:—

| | Boxes Sugar. Havana. | | Matanzas. | |
|---|---|---|---|---|
| United States, | 26,660 | 96,457 | 19,331 | 55,665 |
| Great Britain, | 10,315 | 22,273 | 2,797 | 23,625 |
| Cowes, | 65,521 | 121,721 | 35,722 | 92,334 |
| Baltic, | 11,919 | 9,125 | 4,517 | 17,223 |
| Hamburgh and Bremen, | 22,794 | 50,506 | 13,104 | 45,560 |
| Holland, | 6,715 | 8,010 | 1,094 | ..... |
| Belgium, | 2,459 | 21,994 | 4,790 | 2,892 |
| France, | 11,847 | 35,710 | 2,658 | 3,204 |
| Spain, | 91,716 | 107,192 | 13,108 | 17,869 |
| Italy, | 2,246 | 8,901 | 887 | 340 |
| Other ports, | 9,147 | 22,379 | 6,274 | 46,423 |
| Total, | 261,339 | 515,278 | 104,282 | 285,184 |
| | Hogsheads Molasses. | | | |
| United States, | 17,301 | 26,334 | 29,671 | 47,742 |
| Brit. Prov. and oth. parts, | 1,999 | 1,404 | 2,837 | 6,235 |
| Total, | 19,300 | 27,738 | 33,508 | 53,977 |

The exports of molasses from Cardenas, during the same time, were—

| | 1845. | 1846. |
|---|---|---|
| United States, | 28,669 | 58,753 |
| British Provinces and other parts, | ..... | 205 |
| Total, | 28,669 | 58,958 |

# JOURNAL OF MINING AND MANUFACTURES.

## MANUFACTURE OF RAILROAD IRON IN THE UNITED STATES.

We cheerfully give place to the following communication from an intelligent correspondent residing at Lynchburg, Va., and a large stockholder in the "Tredegor Iron Company," of that State. Our correspondent, it will be seen, refers to an extract from the "Miners' Journal," published in the Merchants' Magazine for January, 1846, in which it is stated that the first railroad iron was made in 1844; and to a correspondent in a subsequent number* of our Journal, who states that the "Great Western Iron Company," on the Alleghany river, produced in 1842, two hundred tons of railroad iron:—

TO THE EDITOR OF THE MERCHANTS' MAGAZINE AND COMMERCIAL REVIEW:—

Sir—In the January number of your truly valuable work, I find an article on the manufacture of railroad iron, taken from the Miners' Journal, in which it is stated that only two years have elapsed since the first ton of railroad iron was made in this country; and again in your February number, this subject is noticed, and the belief expressed that the credit is due to the "Great Western Iron Company" of Pennsylvania, for introducing this important branch of the iron business into our country. Both of these statements are erroneous, doubtless unintentionally so. I have no doubt that the first railroad iron made in the United States was manufactured by the Tredegor Iron Works, at Richmond, Va. The evidence I will offer to sustain the claims of Richmond, is, I think, pretty conclusive. I give it in an extract from a letter of John F. Tanner, Esq., secretary of the Tredegor Iron Company, dated Richmond, 1st February, 1846, to whom I made application for accurate information, after reading your January number, lest my memory should mislead me. Mr. Tanner says, "the first railroad iron made at these works was manufactured in (1837) eighteen hundred and thirty-seven. In 1838, we made a considerable quantity for the Richmond, Fredericksburg, and Potomac Railroad Company, and other roads in this State." Ever since that period, occasional orders for railroad iron have been executed at these works. The Tredegor works were erected in 1836–7; commenced operations, I think, the 8th May, 1837. They were built by Edward Cunningham, John A. Cunningham, and Francis B. Deane, Jr., who conducted them on private account, till 1st January, 1838; when a joint stock company was formed, under a charter obtained from the legislature, at the session of 1837–8; to which company Messrs. Deane & Cunningham sold their works. So it would seem that the individuals who projected and completed the Tredegor rolling-mill were the pioneers in the manufacture of railroad iron in the United States.

The capital stock of the Tredegor Iron Company is about $280,000; the annual product turned out, about $350,000; coal consumed, from 175,000 to 200,000 bushels; pig iron, about 4,000 tons; annual payments for labor, from 50,000 to 60,000 dollars. This establishment manufactures as great a variety of sizes of bar iron, rods, hoops, bands, extra sizes, rounds and squares, locomotive engines, screw moulds, boat plates, and rods for iron vessels, as any other in the Union. The quality of its production is equal to the best iron found in our markets, of English or American manufacture. Besides the extensive works for making malleable iron, of almost every description, which the wants of commerce require, there is attached to them a very large foundry, with machine-shops, fitted up in the best manner, with lathes, &c., for building steam-engines, sugar-mills, and, indeed, machinery of every description. Also, a large boring-mill, and all necessary apparatus for finishing ordnance of the largest size ordinarily used, either in our army or navy. From the Tredegor iron foundry, castings of excellent quality and great variety are annually turned out. The ordnance made there is regarded equal to the best which the government procures elsewhere, of which fact the records of the war and navy departments will afford ample testimony.

I feel much confidence in claiming for the Tredegor works the credit of introducing several other important branches of iron manufacture, as well as railroad iron. I believe locomotive rolled axles were first made there; and if my information be correct, they have to a great extent superseded the English and American hammered axles. The same may be said of boat-rib irons; these were also first made at the Tredegor works, and I am told that even now, there are descriptions of this important article used by government in building iron vessels, which can only be procured at these works.

* Merchants' Magazine for February, 1846, Vol. XVI., No. 2, page 212.

Without intending any disparagement to other works, or the enterprise of my fellow-citizens in the Northern States, I am induced to make this communication,—first, that correct information may be placed before the public; and secondly, that it may be known that the unrivalled advantages possessed by Virginia, for the manufacture of iron, are not so entirely neglected as many believe them to be.

A Stockholder of the Tredegor Company.

## IRON MINES AND MANUFACTURE OF BELGIUM.

The following account of the iron ore, and manufacture of iron, is from the unpublished work of Richard C. Taylor, Esq., of Philadelphia, who has kindly abstracted it from that work, for publication in the Merchants' Magazine:—

Metalliferous Mines, Iron Ore, and Manufacture of Iron.—There are a few mines of lead, pyrites, and manganese, in the Belgian provinces, but iron ore is, above all, distributed in the greatest profusion. It is contained in great deposits, in the form of basins, and also in the state of immense pipes, or funnels, in limestone. Other accumulations fill cavities and depressions in the oolite limestone, and elsewhere occur in great veins. These minerals furnish all the varieties of the best, or strong iron. In general, they are treated with charcoal; but in some localities, mineral coke is employed, especially all the recently erected high furnaces.

The oxydes and hydrates of iron, have, for some years, been worked in several communes on the north of the province of Namur and Luxemburg. In Hainault, the workings of iron ore are not very important, and there are no other minerals mined. In Liege, there are mines of iron ore, and some of zinc, or calamine. Iron ore does not accompany the coal measures here, but forms separate bands and extensive deposits, towards the Meuse, and extending to the Prussian frontier.

| Provinces. | Places of extraction. | Concessions. | | Area in hectares. | | Workmen. | | Tons of iron ore extracted. | | High furn. | St. eng. in ir'n w'ks. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1836. | '38. | '38. '42. | '38. | '42. | '36. | '38. | '36. | '38. | '38. | *Horse No. power.* |
| Hainault, ..... | 121 | 15 | 2 .. | 2,559 | ..... | 524 | 206 | 39,981 | 31,826 | 34 | ... .... |
| Namur and Luxemburg, .. | 1,061 | 569 | 22 27 | 35,685 | 36,857 | 3,213 | 1,687 | 528,925 | 231,665 | 83 | ... .... |
| Liege, ..... | 144 | 156 | '12 .. | 11,977 | ..... | 1,067 | 1,082 | 68,049 | 71,347 | 22 | ... .... |
| Total, .... | 1,326 | 740 | 36 27 | 50,221 | 36,857 | 4,804 | 2,975 | 638,955 | 334,838 | 139 | 160 3,640 |

The reduction in the last year's produce, arose from the excessive supply of the two preceding years, and the consequent encumbering of the magazines. It was the natural consequence of an excessive supply. Metallurgic industry, in consequence of the previous excess of production beyond the wants of the consumers, suffered a reaction, the effects of which were considerable losses during the five succeeding years. We have already adverted to this epoch of over-production and speculation, and to its injurious influence and results, when treating on the subject of coal. Little more than one-half the workmen were employed this year.

In 1838, out of the two hundred and seventy mineralurgic establishments in the kingdom, two hundred and twenty-one were for the treatment and the preparation of iron, of which number one hundred and thirty-nine were high furnaces. Through the pressure of the times, alluded to, several high furnaces were put out; and in 1841, eight high coke furnaces, alone, out of sixteen, were in operation in the province of Liege.*

In 1830, the first high furnace was erected in Charleroi, for the smelting of iron. Seven years after, 1837, there were twenty-five coke furnaces in action, producing annually 75,000 tons of metal.

On the termination of its union with France, Belgium possessed eighty-nine high furnaces, one hundred and twenty-four forges, and eighty other iron works.

The coke furnaces in Hainault, produced of pig iron, in—

| 1839. | 1844. | 1845. | 1846. |
|---|---|---|---|
| Tons. | Tons. | Tons. | Tons. |
| †30,583 | 41,956 | 58,135 | estimated 114,000 |

The condition of the iron establishments, in 1838, was as follows:—

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* Rapport au Roi. 1843. LXVII. and p. 236.

† Report of the Sambre and Meuse Railway Company, July 2, 1846.

| | Active. | Inactive. | Total. |
|---|---|---|---|
| High furnaces,..... | 98 | 41 | 139 |
| Foundries,..... | ... | ... | 47 |
| Fineries,..... | ... | ... | 17 |
| Affineries,..... | 220 | 36 | 256 |
| Forge-hammers,..... | ... | ... | 131 |
| Other machines,..... | ... | ... | 263 |
| | — | — | — |
| | | | 853 |

In 1842, there were only fifty-eight blast furnaces in Belgium. Of these, thirty-eight had been out of blast for three years; and of the remaining twenty, not one was paying a dividend to the shareholders. There was not a single furnace at work with the hot blast; and the lowest price at which a ton of forge pig could be produced, under the most favorable circumstances, was £3 14s. sterling, = $18.* The make of iron, this year, was 121,000 tons,† and advanced to 150,000 tons in 1845.

The demand for iron has, however, of late years, been much on the increase—not only for the home consumption, in consequence of the progress of railways from one end of Belgium to the other, but for supplying numerous railways in France. Hundreds of furnaces are now (1847) in blast, where, twelve years ago, not one was seen, and the others were abandoned.

The following table sufficiently indicates the periodical condition of the iron trade, in one department, during the eventful periods of which we have been speaking:—

STATEMENT OF BELGIAN IRON EXPORTED TO FRANCE.

| Years. | Tons. | Years. | Tons. | Years. | Tons. |
|---|---|---|---|---|---|
| 1821,..... | 3,200 | 1832,..... | 3,178 | 1840,..... | 5,085 |
| 1824,..... | 3,400 | 1834,..... | 3,845 | 1841,..... | 9,029 |
| 1827,..... | 3,587 | 1836,..... | 9,303 | 1842,..... | 12,543 |
| 1828,..... | 3,800 | 1838,..... | 3,678 | 1843,..... | 21,521 |
| 1830,..... | 2,934 | 1839,..... | 3,100 | 1844,..... | 31,387 |

The price of iron has, in consequence of this favorable change and its enlarged demand, increased, within the last sixteen years, at least from 25 to 30 per cent, although there were, in 1846, more than five times the number of furnaces at work than formerly.‡

The exportation of unwrought cast iron, during the first six months of 1845, was 19,000 tons; and during the first six months of 1846, 33,000 tons. The greater part of this was sent to Germany and France.§

The home consumption of iron, in 1845, was 120,000 tons.

In 1846, Messrs. Sopwith and Smith, civil engineers, reported on the mineralogical capabilities of the district, between the Sambre and the Meuse, and upon the apparently exhaustless deposits of iron ore, particularly with reference to the iron mines at Couvin, near the frontier of France. They state, that the limestone formation of that district contains vast deposits of iron ore, in pockets, or funnel-shaped cavities, which admit of being worked with great facility, owing to their proximity to the surface.

These deposits of iron ore extend upwards of seventy miles, in an east and west direction. For some years, the iron works of this region have remained in a state of inactivity, arising from the commercial embarrassments of 1838–39, which caused so much loss and interruption throughout the whole of the industrial establishments of Belgium. From these great and ruinous causes of depression, many of these works never revived; others, in time, began slowly, and under great disadvantages, to resume operations. The most apparent of these difficulties was, the want of capital; but, it is stated, the iron works are now, almost without exception, doing well.

We infer that English capital, to a large extent, is now brought to bear on the mineral resources of this quarter.

## RUSSIAN GOLD AND PLATINA.

Gold was first collected in the Uralian Mountains, in 1815; and up to the year 1844, only 9,000 pounds pure gold was produced, valued at 150,000,000 rubles, or 600,000,000 francs. Platina was first obtained there, in 1809, and produced more than 2,000 pounds, and valued at 7,000,000 rubles, or 28,000,000 francs. The mines are situated along the Uralian Mountains from 52° to 62° North latitude, and 80° and 135° East longitude.

* Correspondent of the Mining Journal. London, 1842.
† Traite de fabrication de la Fonte et du Fer. 1845. P. 1,288.
‡ Mining Journal, Feb. 21, 1846.
§ Report of the Belgian government, in 1846.

## THE AGATES FROM OBERSTEIN.

TO THE EDITOR OF THE MERCHANTS' MAGAZINE AND COMMERCIAL REVIEW.

SIR—It is well known that for centuries past, millions of marbles, snuff-boxes, buttons, seal-stones, breast-pin and ear-ring ornaments, mortars and pestles, have been made from agate, cornelian, chalcedony, onyx, quartz, or rock crystal, bloodstone, or heliotrope, jasper, amethyst, petrified wood, &c., and that they have borne the name of Oberstein productions. It may be well to clear the path of the ignorant, and to state that there exists at Oberstein but one agate polishing establishment, while Idar, a small place with 1,500 inhabitants, on the little river Idar, in the neighborhood of Oberstein, appertaining to the Duchy of Oldenburg, is the principal depot. The little town of Idar is situated in a very romantic valley, surrounded by steep columns of porphyry and amygdaloid, from which the agate is dug out. It contains (including two small villages of the same parish) fifty polishing establishments, and 300 polishers; and as many as forty men are wholly engaged in boring and drilling the holes in the agates. Large quantities of the rough semi-precious stones, such as amethyst, beryl, garnet, and others, are brought from Brazil, Siberia, and the East Indies, to this place, to be converted into the various useful utensils, such as mortars and pestles, for enamellers and chemists; teeth and stones, for bookbinders, and burnishers of metals; flints, cups, snuff-boxes, pen-holders, *flacons*, thimbles, finger-rings, letter-weights, necklaces, knife-handles, &c., &c. Oberstein furnishes, at present, the greatest quantity of snuff-boxes of pasteboard, or papier mache, and cyprea shell.

L. FEUCHTWANGER.

## MANUFACTURE OF TAPESTRY CARPETING IN MASSACHUSETTS.

This beautiful branch of manufacture, as we learn from the "*Farmer and Mechanic*," (a most valuable journal, conducted with ability by William H. Starr, Esq.,) hitherto exclusively foreign, has recently been introduced into this country, and bids fair to become a profitable and extensive business. With that energy and enterprising spirit, so characteristic of the mechanics and manufacturers of our country, Messrs. Clark & Hartman, of Clapville, Massachusetts, have embarked in this business, and we are gratified to learn that it promises to be abundantly successful. Mr. Starr has seen specimens of their manufacture which he pronounces equal in appearance to the finest Brussels, and one of its peculiarities consists in having the figure beautifully and ingeniously printed upon *the warp*, before being woven, instead of the insertion of the various separate colors during the process of weaving, as was generally practised in Europe. The back of the web is of flax or hemp, rendering it very strong and durable. It is woven on a simple common loom, requiring no extra harness or pattern guides; as the figure, whatever its form or character, whether groups of flowers, landscape, or fancy sketches, must come in right in the weaving. The colors are laid upon the warp of the printing machine with such mathematical precision that there is no possibility of getting the figures wrong. The entire machinery for this business is of American origin, and patented. It was invented by Mr. Hartman, who is by birth a Scotchman, but a naturalized citizen of the United States, having been in this country over twenty years, and was only acquainted with the Scotch plaid and ingrain carpet-weaving when he left his native home. He has been now more than three years perfecting his machinery, and making experiments with his coloring matter and process. He has now three printing machines in operation that print *one hundred yards each, per day.** He has also about a

* The plan of block printing, on the warp, was introduced into Scotland, about eight years ago, and to this time, by their method, one man can only get off from ten to fifteen yards per day; but Mr. H. did not, nor does he yet know, their method of calculation for laying the figure, or preparing the colors. Mr. H. sets the colors by steaming, after printing, and uses every variety of shade.

dozen looms ready for weaving. The company will put up a building this spring, for one hundred looms. The first piece of carpeting of the kind manufactured in America, was made by this firm, in April, 1846; and since that time until quite recently, they have done but little more than make experiments, in order to produce a perfect article. Mr. Hartman says, that in bringing out this machinery, he is not indebted to Europe for any part of it; and so confident was he of success, that he expended his whole property long before it was completed, and was only able to mature it by parting with one-fourth of his interest in the patent; and if he had failed, his family and himself must have been left pennyless. It gives us peculiar pleasure, however, to say, that success seems to crown his efforts, while *he* rejoices that his invention is *altogether American.*

## SHIP-BUILDING IN NEW YORK.

The demand for shipping, and the high rates which freights command in all our ports and harbors, has produced great activity in this department of the industrial arts; a circumstance, it is scarcely necessary to state in this place, that illustrates the mutual relations of commerce and the mechanic arts. Indeed, agriculture, commerce, and manufactures, are mutually dependent on each other, and no considerable degree of depression or prosperity can be experienced for any length of time by one, without producing a corresponding effect on the other branches of enterprise and industry.

For the following list of vessels, now building and about to be built, at the different shipyards in the port of New York, we are indebted to a correspondent of the New York Farmer and Mechanic:—

At W. H. Webb's Yard.—Ship of 1,000 tons burden, 160 feet long, 31 feet beam, and 21 feet hold, called the New York, designed for Messrs. Fox & Livingston's line of Havre packets. Ship of 1,300 tons, 175 feet long, 38 feet beam, and 22 feet deep, for C. H. Marshall's line of Liverpool packets. Ship of 1,000 tons, and about the size of the New York, intended for Messrs. Taylor & Merril, Liverpool trade. Steamship United States, the first of the line of the four between this city and New Orleans, under the direction of C. H. Marshall, Esq. She is 244 feet long on deck, 40 feet beam, 23 feet hold, and 1,900 tons burden. The keels of two ships, 1,300 tons burden each, for Messrs. Grinnell, Minturn & Co.'s London line, will be laid immediately at this yard.

At Brown & Bell's Yard.—Ship of a beautiful model, intended for the China trade. She is 950 tons burden, 34 feet 6 inches beam, 175 feet long, and 20 feet hold. Steamship-of-war for the Peruvian government, about 800 tons burden.

At Westervelt and Mackay's Yard.—A large ocean steamship, to be called the Lafayette, the second in the Bremen and New York line of steam packets. She will measure 2,500 tons burden, 255 feet long, 40 feet beam, 24 feet 6 inches hold. Ship of 1,100 tons measurement, 162 feet long, 37 feet beam, and 21½ feet hold, for Robert Kermit's line of Liverpool packets.

At Jabez Williams & Son's Yard.—A beautiful modelled ship of 850 tons burden, 145 feet long, 33 feet beam, and 20 feet hold. She is called the Creole, and is intended for Messrs. Stanton & Frost's line of New Orleans packets. Also, a ship of 1,000 tons, 160 feet on deck, 38 feet beam, and 22 feet hold, for the same line.

At W. H. Brown's Yard.—A ship for the Charleston trade, measuring about 750 tons. Also, about laying the keel of steamship Northerner, for Messrs. Spofford, Tileston & Co.'s Charleston steam packet line.

At Lawrence & Sneeden's Yard.—A steamboat of 400 tons.

At Perine, Patterson & Slack's Yard.—Ship for Messrs. Slate, Gardiner & Howell, of about 1,200 tons burden, intended for a Liverpool packet. Ship for Warren Delano, Esq., of about 950 tons burden, intended for the general freighting business. Ship for Messrs. Slate, Gardiner & Howell, Liverpool packet, about 1,300 tons burden, now commenced.

At Smith & Dimon's Yard.—A magnificent ship for Mr. Delano, measuring 1,000 tons, length 170 feet, breadth of beam 34 feet 6 inches, and 20 feet hold. She is designed for the Liverpool trade.

At Bishop & Simonson's Yard.—A neat steamship, contracted for by Messrs. Mason & Thompson, to run between Porto Rico and St. Thomas. She is about 450 tons, 135

feet long, 26½ beam, and 11 feet hold. Also, a steamer of 150 tons, for the Brazilian government, to ply as a mail or passenger boat on the Rio Grande. Also, a boat for the Fulton ferry. The keel of a steamer will be laid immediately for the river trade, measuring 450 tons, 190 feet in length, and 28 feet beam.

## AMERICAN MANUFACTURED DUCK.

This article will soon become not only a desirable, but a decidedly popular article in the commercial world. The editor of the "Louisville Journal" has received a letter from Mr. J. Goulding, formerly of that city, dated January 19th, enclosing a specimen of duck, manufactured by him from Kentucky hemp. The most expensive article of the sort, now made, is the Holland hempen duck, which is not as handsome a fabric as that made of flax. Mr. Goulding's specimen is pronounced excellent in all respects, and in appearance resembles the flax duck. In his letter, Mr. Goulding says:—

"I send you in this letter a small sample of my duck. It is made of Kentucky dew-rotted hemp, and is the production of the first loom that was started. The machinery I had, made in England, has required considerable alterations; and the ten looms, made in Worcester, Massachusetts, contrary to my expectations, required considerable change. I have overcome these difficulties, and expect to be under full headway in two months, making an A. No. 1. article—nothing better, to say the least of it. I can weave as thick or as thin as there is any call for, and thicker than is needed; and I don't know that I have much to learn in the preparation of the hemp for duck."

## MANUFACTURE OF MARBLE BY CASTING.

The invention of a composition which perfectly imitates marble, and which may be poured in a fluid state into moulds, for the making of casts, is found to answer so well that a manufactory of these casts has been erected at Charlottenburg, in Prussia. The "Nuremberg Correspondent" states that the first samples have made their appearance, and that they surpass all expectation, having all the soundness and transparency of the stone they imitate, and perfectly resemble the Carrara marble. Statues may be cast of this material as easily as of plaster of Paris, and will be afforded at so cheap a rate that it will be in the power of persons of very moderate means to possess them. It is expected that this invention of marble castings will be applied to the building and ornamenting of houses. Moser and Kriegk, the inventors, keep their method a secret, but admit that they obtain the material from Bohemia.

# RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

## STEAM COMMUNICATION BETWEEN ENGLAND AND NEW ORLEANS.

The leading merchants of Liverpool, England, have addressed a memorial to the "Right Honorable the Lords Commissioners of the Admiralty," representing to their lordships the great advantages which would follow a direct steam communication between England and the port of New Orleans, and earnestly request their lordships to avail of the opportunity now open for such communication, by ordering the British West India steamships to call at Cat Island harbor.

In regard to the number of passengers, and value of correspondence, the Liverpool merchants say, "there is no station, in the present route of the company, of equal importance to that of New Orleans, which is at once the depot for the produce of the valley of the Mississippi, and the port through which British manufactures find an entrance into the Western States."

The value of such a trade, not only to the petitioners, but to England, will doubtless secure for the measure the consideration of their lordships. The memorial is signed by Brown, Shipley & Co.; Watson, Brothers & Co.; Rathbone, Brothers & Co.; Fieldon, Brothers & Co.; A. Dennistoun & Co.; Todd, Jackson & Co.; Molyneux, Taylor & Co.; Geo. Green & Son; and about forty other of the most influential houses in Liverpool.

## COST OF CANAL REPAIRS.

We find, in a late number of the Rochester Democrat, the following tabular statement in reference to a subject of interest at this time. It contains much interest for those who desire to offer proposals for portions or sections of canal repairs—as it gives the *average cost of repairs per mile*, for several years:—

| | Erie. | Oswego. | Cayuga & Seneca. | Chemung. | Crooked Lake. | Chenango. | Genesee Valley. |
|---|---|---|---|---|---|---|---|
| 1828..... | $513 | $239 | ..... | ..... | ..... | ..... | ..... |
| 1829..... | 529 | 361 | $386 | ..... | ..... | ..... | ..... |
| 1830..... | 461 | 349 | 247 | ..... | ..... | ..... | ..... |
| 1831..... | 382 | 254 | 153 | ..... | ..... | ..... | ..... |
| 1832..... | 743 | 340 | 243 | ..... | ..... | ..... | ..... |
| 1833..... | 746 | 313 | 274 | $666 | ..... | ..... | ..... |
| 1834..... | 976 | 338 | 401 | 691 | $231 | ..... | ..... |
| 1835..... | 893 | 453 | 440 | 269 | 445 | ..... | ..... |
| 1836..... | 704 | 1,434 | 1,358 | 251 | 592 | ..... | ..... |
| 1837..... | 830 | 1,608 | 1,297 | 393 | 776 | $201 | ..... |
| 1838..... | 851 | 1,371 | 861 | 364 | 556 | 214 | ..... |
| 1839..... | 676 | 679 | 1,063 | 391 | 444 | 177 | ..... |
| 1840..... | 827 | 915 | 1,124 | 335 | 592 | 159 | $125 |
| 1841..... | 581 | 694 | 633 | 933 | 1,129 | 160 | 290 |
| 1842..... | 732 | 827 | 719 | 386 | 1,014 | 195 | 341 |
| 1843..... | 676 | 623 | 497 | 344 | 505 | 155 | 292 |
| 1844..... | 844 | 752 | 656 | 485 | 493 | 164 | 299 |
| 1845..... | 907 | 1,227 | 945 | 485 | 595 | 195 | 325 |
| 1846..... | 843 | 1,409 | 560 | 385 | 663 | 190 | 334 |

## COST OF RAILWAY CONSTRUCTION IN GREAT BRITAIN.

The railways completed, from 1823, in which year the Stockton and Darlington, (the first line,) was opened, to 1844, comprise altogether 64 lines, of an aggregate length of 2,069½ miles, and have been constructed at an actual cost of £64,238,600; being an average of £31,048 per mile, as will be seen by the following list, compiled from the Board of Trade Reports:—

| Completed. | Railways. | Length. | Cost. | Completed. | Railways. | Length. | Cost. |
|---|---|---|---|---|---|---|---|
| 1823..... | 1 | 38 | £256,000 | 1840..... | 7 | 219 | £8,405,700 |
| 1830..... | 3 | 47½ | 1,780,000 | 1841..... | 12 | 423 | 17,452,900 |
| 1831..... | 2 | 14½ | 185,000 | 1842..... | 8 | 355½ | 10,472,600 |
| 1832..... | 1 | 16 | 175,000 | 1843..... | 2 | 66½ | 2,052,800 |
| 1834..... | 2 | 35 | 375,400 | 1844..... | 7 | 302½ | 5,586,060 |
| 1835..... | 1 | 6 | 38,400 | 1845..... | 7 | 83½ | 2,137,000 |
| 1837..... | 1 | 27 | 158,600 | | | | |
| 1838..... | 10 | 357½ | 11,471,600 | Total..... | 64 | 2,069½ | £64,238,600 |
| 1839..... | 6 | 78 | 2,692,900 | | | | |

In an able statistical paper in the *Edinburgh Review*, said to be written by Dr. Lardner, it is stated that if we take the principal railways which have been completed and brought into full operation, excluding only a few obviously exceptional ones, we shall find that the average amount of capital which they have absorbed, is at the rate of £35,000 per mile. This amount has in different cases been distributed in different proportions among the several heads of expenditure; but the following may be taken as near the average distribution:—Cost of land, £4,000; way and works, £22,000; office and sundries, £1,000; locomotive power and working stock, £8,000; total, £35,000.

The railways constructed with the wide guage were more expensive. An extent of 240 miles had absorbed £9,704,368, at the close of last year, being at the rate of above £40,300 per mile.

## TABLE OF FREIGHT AND TOLLS ON COAL.

The following table shows the rate of freight and tolls on coal, per Philadelphia and Reading Railroad, from March 1st to July 1st, 1847:—

| | From Mount Carbon. | From Schuylkill Haven. | From Port Clinton. |
|---|---|---|---|
| To Philadelphia, | $1 50 | $1 40 | $1 25 |
| " Inclined Plane, | 1 40 | 1 30 | 1 10 |
| " Richmond, | 1 40 | 1 30 | 1 10 |
| " Nicetown, | 1 40 | 1 30 | 1 10 |
| " Germantown Railroad | 1 40 | 1 30 | 1 10 |
| " Falls of Schuylkill | 1 25 | 1 15 | 1 00 |
| " Manayunk | 1 15 | 1 05 | 95 |
| " Conshohocken | 1 05 | 1 05 | 90 |
| " Turn-out, one mile below Norristown. | 1 00 | 1 00 | 90 |
| " Plymouth Railroad | 1 00 | 1 00 | 90 |
| " Norristown or Bridgeport | 1 00 | 1 00 | 90 |
| " Port Kennedy | 1 00 | 1 00 | 90 |
| " Valley Forge | 1 00 | 1 00 | 90 |
| " Phœnixville | 95 | 95 | 85 |
| " Rover's Ford | 90 | 90 | 80 |
| " Pottstown | 90 | 90 | 80 |
| " Douglassville, | 90 | 90 | 80 |
| " Reading | 80 | 80 | 70 |
| " Mohrsville | 60 | 60 | 50 |
| " Hamburg | 40 | 40 | 30 |
| " Orwigsburg | 30 | 30 | 30 |

By order of the Board of Managers. S. BRADFORD, Secretary

## TROY AND GREENBUSH RAILROAD.

This road extends along the eastern margin of the Hudson River, from the city of Troy to Greenbush, (opposite Albany,) a distance of six miles, connecting with trains on the Boston and Western Railroad. The following statement exhibits the number of passengers, and the amount of passenger and freight earnings, for each month, from the opening of the road to the close of the year 1846:—

| | 1845. | | | 1846. | | |
|---|---|---|---|---|---|---|
| | No. | Amount. | Freight. | No. | Amount. | Freight. |
| January | ..... | ..... | ..... | 10,729 | $1,335 90 | $1,597 94 |
| February | ..... | ..... | ..... | 9,580 | 1,192 94½ | 1,310 25 |
| March | ..... | ..... | ..... | 12,905 | 1,603 35 | 1,383 60 |
| April | ..... | ..... | ..... | 21,134 | 2,627 42½ | 1,171 81 |
| May | ..... | ..... | ..... | 21,827 | 2,611 47½ | 1,020 02 |
| June | *3,429 | $425 62½ | $37 98½ | 25,381 | 3,141 22 | 879 71 |
| July | 15,811 | 1,968 37½ | 218 80½ | 32,204 | 4,000 41 | 925 73 |
| August | 16,191 | 1,994 04½ | 290 83 | 28,219 | 3,601 74 | 930 29 |
| September | 18,434 | 2,271 26 | 545 35 | 26,091 | 3,724 21½ | 933 52 |
| October | 18,270 | 2,249 84 | 577 40 | 22,925 | 3,347 05 | 1,696 65 |
| November | 17,215 | 2,194 11½ | 617 51 | 18,620 | 1,741 83 | 1,570 69 |
| December | 9,361 | 1,167 60 | 1,359 44 | 10,420 | 1,738 94 | 2,601 48 |
| Total | 96,711 | $12,200 86 | $3,647 32 | 240,036 | $31,966 50 | $16,023 69 |

From January 1st, to August 17th, the fare over the road was 12½ cents. From that date to December 7th, it was 15 cents. From that time it has continued at 20 cents.

* Road opened for travel, June 13th, and until July 4th, only two trips each day were made.

# THE BOOK TRADE.

1.—*Reports of Cases decided in the High Court of Chancery, by the Right Honorable Lord Chancellor Cottenham, Lord High Chancellor of England, with Notes and References to both English and American Decisions.* By JOHN A. DUNLAP, Counsellor at Law. Vol. XVIII. Containing Myle & Craig's Chancery Reports, Vol. IV., and Craig & Phillips', Vol. I., 1838, 1839, 1840, 1841, 1842, 1843, 1844, Victoria. New York: Banks, Gould & Co.

This is volume XVIII. of the series of English Chancery Reports now in course of republication. It contains two volumes of decisions made by the present Chancellor of England, Lord Cottenham, during his former term of office; for it has been the fortune of Lord Cottenham to be both predecessor and successor of Lord Lyndhurst as Chancellor, having held the office in the Melbourne ministry as well as that of Russell. As to the value of English cases, in American courts, whatever controversy at any time existed on the subject has pretty much died away. Nearly all now admit that, however little their binding authority as decisions, they are at least worth all that their reason is worth; and how much that is worth becomes very evident the moment we consider that the legal systems of both countries not only rest on the same great principles, but are similar in their organization of courts and in the forms of remedy. This is particularly true of New York, where the law is identical with that of England in very many of the minuter points of pleading, and even of practice. As to the value of Lord Cottenham's decisions in particular, we believe they are highly esteemed by the profession at large for their soundness. It was the opinion of Judge Story that they carried far greater weight than those of his successor, to whom, as we have seen, he has himself just succeeded. There is one point about this work deserving of special commendation. It gives the decisions of the English volumes entire, and it gives *all* of them. Hitherto our publishers have been in the habit of furnishing the profession with the English Reports condensed. Now we cannot conceive of a book less capable of being abridged to advantage than a Book of Reports. Apart from Coke's *Omnia Compendia sunt dispendia, &c.*, it is not disparaging a lawyer's ability, but only denying his prescience, to say that he cannot make a good or safe abridgment of reports, to take the place of the original. It is impossible for any lawyer, however great his legal insight, to foresee what cases may or may not occur, and, consequently, what precedents may not be needed and may be omitted in such an abridgment. And the difficulty is ten-fold greater in a country like this, with some thirty different State tribunals, which, though having a family resemblance, yet, like the sisters in Ovid, who looked alike, yet unlike, *facils non omnibus una nec diversa*, vary and differ in a thousand points more or less minute, so that the precedent which may be thought obsolete in one State may be of great value in another. A law book, therefore, republished or edited for the use of the whole country, is the last thing to be edited with reference to any particular State. We hope and believe that the publishers of this volume will be supported in their enterprise, and encouraged to go on with the series in the same thorough manner.

2.—*Argument of (late) Edward Livingston against Capital Punishment.* Published by the New York State Society for the Abolition of Capital Punishment. Office of the Society, 140 Fulton street. W. H. Graham, Tribune Buildings, New York.

Edward Livingston was one of those great intellects that appear at intervals in the world's history, whose views reach far beyond those of their cotemporaries. His "Criminal Code for Louisiana," from which the pamphlet before us is extracted, is an illustration of this remark. In a volume of 745 pages he spread out the most comprehensive and enlightened system of criminal jurisprudence ever produced. Every improvement in the codes of our different States, that has been made or proposed, was shadowed forth by his great mind. The prison associations, the societies for relief of discharged convicts, and the homes for prisoners, which are springing up in all parts of Christendom, are but emanations from the same source. Of course he was opposed to the death penalty, and his argument on this point is concise, clear, and unanswerable. The N. Y. Society have done well in republishing it in a neat pamphlet of 24 pages. The testimony of some fifty eminent jurists, philosophers, and clergymen of all denominations, has been appended to the work, also the names of the officers and honorary members of the State Society. The subject of capital punishment is at present engrossing a large share of the public attention, and all classes of the community are interested in understanding the merits of the controversy. We know of no way in which this can be so easily done as by an examination of this pamphlet.

3.—*A School Grammar in the Latin Language.* By C. S. ZUMPT, Professor in the University, and Member of the Royal Academy of Science of Berlin. Translated and adapted to the use of the High School of Edinburgh. By LEONARD SCHMITZ, F. R. S. E., Rector of the High School of Edinburgh. Corrected and Enlarged. By CHARLES ANTHON, LL. D., Professor of the Greek and Latin Languages in Columbia College, New York, and Rector of the Grammar School. 12mo., pp. 246. New York: Harper & Brothers.

In order to render this excellent manual still more serviceable to the young student, Dr. Anthon has incorporated, not only from the larger work of the author, but also from other equally valuable sources, much additional matter. Dr. Anthon's reputation as a classical scholar is, of itself, a sufficient recommendation of the work.

4.—*The Writings of George Washington; being his Correspondence, Addresses, Messages, and other Papers, Official and Private. Selected and Published from the Original Manuscripts; with a Life of the Author, Notes, and Illustrations.* By JARED SPARKS. Vol. I. 8vo., pp. 586. New York: Harper & Brothers.

This is the first of twelve large and handsome octavo volumes, originally published about ten years ago, and now reproduced by the enterprising Harpers, in a style equal, if not superior, to the first edition, and at less than one-half the price; and this, notwithstanding a liberal copyright is paid to Mr. Sparks, the able and laborious compiler. It is incomparably the cheapest standard publication that has yet been produced in this country. The publishers certainly deserve the thanks of every American, for placing so valuable a work in the hands of the whole people; as it must hereafter be found in every public library in the land, including the ten thousand District School Libraries of the State of New York, &c. The present volume embraces a full, complete, and satisfactory life of the Father of his Country; to whom, under Providence, we are indebted for our national existence, and that measure of civil and religious liberty we enjoy. The volumes are sold at *one dollar and fifty cents each*—the original price was $3 50.

5.—*The True Believer: his Character, Duty, and Privileges, elucidated in a Series of Discourses.* By Rev. ASA MAHAN, President of the Oberlin Collegiate Institute, Oberlin, Ohio. 18mo., pp. 280. New York: Harper & Brothers.

The revered and learned author of these discourses is at the head of a denomination of Christians known as "Perfectionists." The present volume, of course, inculcates views in harmony with the peculiar sentiments of the author, and the sect of which he is an honored member and teacher. It seems to us that a system of religion which contemplates a high degree of human excellence, is more likely to reach the mark than one that reverses the standard, and views with despondency man's aspirations after perfection.

6.—*The Principles of Science applied to the Domestic and Mechanic Arts, and to Manufactures and Agriculture; with Reflections on the Progress of the Arts, and their Influence on National Welfare.* By ALONZO POTTER, D. D., Professor of Moral Philosophy and Rhetoric in Union College, Schenectady. Revised edition. 12mo., pp. 444. New York: Harper & Brothers.

The present work, which was originally prepared for, and incorporated into, the Massachusetts "School Library," is designed for those who are engaged in industrial pursuits, and also for students, and for popular reading. So far as it presents a formal and somewhat extended view of the connection between science and art, it fills, perhaps, a place not yet occupied in our literature. The author appears to have had access to the most recent works on the subject, and has introduced many of the improvements in such arts as are discussed. It is well adapted for our District School Libraries.

7.—*Letters, Conversations, and Recollections of S. T. Coleridge.* Second edition. 12mo., pp. 266. New York: Harper & Brothers.

Bolingbroke, in a letter to Swift, once said that "Pliny writ his letters for the public; so did Seneca, so did Balzac, Voirture," etc.. "Tully," he adds, "did not; and therefore they give us more pleasure than any which come down to us from antiquity." The last statement applies with equal force to Coleridge, of our own time. In these letters we are admitted, as it were, into the inner shrine of the man, where we hear him commune with his own soul. They place before us memorials of one of the greatest and best men of this age; for, in great and varied attainments, in the power of placing scattered truths in harmonious combination, and illustrating them out of the stores of a vast intellect, Coleridge is considered by far the most wonderful man of his time.

8.—*Importance of Practical Education and Useful Knowledge; being a Selection from his Orations and other Discourses.* By EDWARD EVERETT. 12mo., pp. 419. New York: Harper & Brothers.

This volume embraces selections from the orations and speeches delivered by the author on various public occasions, within the last twenty years. They all refer to the subject of education; and, as models of a correct, elegant, and scholarly style of writing, they will have many admirers and imitators. Classic grace, rather than Anglo-Saxon boldness and energy, characterise the orations of Mr. Everett. They are rather designed to stimulate scholarship, than develop bold and original thought.

9.—*The Institutes of Medicine.* By MARTYN PAINE, A. M., M. D., Professor of the Institute of Medicine and Materia Medica in the University of New York; Member of the Royal Vereinfur Heilkunde in Preussen; of the Medical Society at Leipsic; of the Montreal Natural History Society, etc., etc. 8vo., pp. 826. New York: Harper & Brothers.

This is an elaborate treatise on medical science—if, indeed, it can be dignified, in its present condition, with that title. The author has aimed to keep before him the difficult objects of adapting his work not only to the student in medicine, but to the more advanced practitioner. How far he has succeeded in this respect, there are those more competent than we are to judge. It is evidently a work of great research and ability, and will, no doubt, be duly appreciated by gentlemen of the regular alopathic school. The learning and erudition displayed in its preparation, is creditable to this branch of our country's literature.

10.—*Rambles About the Country.* By Mrs. E. F. ELLET. 18mo. New York: Harper & Brothers.

These sketches are written in a graceful and pleasing style, and are not only calculated to interest and instruct those for whose benefit they were designed, but to satisfy them that there are in our own country objects of equal interest to those of other countries, and that there is no need of going to foreign lands to enjoy the gratification of witnessing grand and beautiful scenery, when so much of it is to be found at home.

11.—*The Lectures delivered before the American Institute of Instruction, at Plymouth, August, 1846; including the Journal of Proceedings and a List of the Officers. Published under the direction of the Board of Education.* 12mo., pp. 203. Boston: William D. Ticknor & Co.

Besides the few pages occupied with the proceedings and officers of this important Institute, the volume contains eight lectures from as many individuals, whose education and experience cannot fail to command the respect of all who are interested in the advancement of learning. An enumeration of the titles of these lectures will give the best idea of the contents of the volume, at least which our limited space will permit. The subjects are—1st, Home Preparation for School—2d, The Influence of Morals upon Intellectual Improvement—3d, The Essentials of a Common School Education, and the conditions most favorable to their attainment—4th, The Education of the Faculties, and the proper employment of young children—5th, Obligations to elevate the Character of our Common Schools—6th, Importance of Cultivating Taste in Early Life—7th, On Phronotype and Phronography, or Speech Writing and Speech Printing—8th, On the Study of the English Language. The subjects are generally discussed in a satisfactory manner, and furnish good evidence of the progress of knowledge on the vital question of education. We cheerfully commend the lectures to teachers, parents, and indeed to all who feel an interest in the intellectual and moral development of the race.

12.—*Essays.* By THEOPHILUS PARSONS. Second Edition. 16mo., pp. 181. Boston: Wm. D. Ticknor.

The number is small who have read any of the writings of Swedenborg, whatever may have been their religious creed, who have not become impressed with the sincerity of his convictions, and the purity of his character. Many, without receiving in full all his teachings, find in his works much that harmonizes with the instructions of their own minds. Mr. Parsons, the author of these essays, a gentleman of intelligence and great moral worth, is a disciple of Swedenborg, or a devoted member of the "New Church," and in these essays discusses the several subjects in the light learned from the religion and the philosophy of the Swedish Seer. The titles of the essays are:—Life, Prudence, Correspondence, the Human Form, Religion, and the New Jerusalem. "Whatsoever is found in them," says Mr. Parsons, in his brief and modest preface, "new, and just, and interesting, belongs to that system;" and he publishes them for the good they may do, "with very great reluctance, from the fear that their faults and imperfections may be attributed to the system of truth, of which they present a few portions." Swedenborgians will read this volume with pleasure; and eclectics in religion, like ourselves, "if we have any," as a venerable divine once said, "to speak of," gather, peradventure, from its pages, some grains of "truth and good."

13.—*Past and Present, and Chartism.* By THOMAS CARLYLE. "Library of Choice Reading, Nos. 96, 97." New York: Wiley & Putnam.

These two distinct works are so similar, both in their aim and their style, that they seem parts of one and the same work. Their bearing on British politics is not a matter of indifference to us. Carlyle, without ranging himself under the banner of any party, pleads the cause of the poor—their right to breathe and work; to be fed, taught and governed. In defending their cause, he runs back to first principles a little more than would be agreeable to those whose sole end is "to own land." Their application contains some of the most perfect specimens of sarcasm we have ever seen. The lower classes, should they read his books, would never know what their champion had done for them. Were his arguments done into plain English they would tend to deluge England in blood; but he seems purposely so to have veiled his meaning that it should be to the upper classes a most pungent appeal—to the masses an unreadable rhapsody. If he would only add a third volume on the National Debt, in all its bearings, a more perfect political essay could not be found in the English language.

14.—*The Home Treasury, No. 1. Comprising—Cinderella, Beauty and the Beast, Grumble and Cheery, the Eagle's Verdict, and the Sleeping Beauty in the Wood.* Vol. I. 12mo. New York: Wiley & Putnam.

This first volume of the Home Treasury is one of those enchanting little selections which all children devour; and whose pages even grown persons are beguiled into reading, scarcely knowing whether it is their manifest falsity, or the intense interest they excite and sustain so well. In short, these are tales which almost every one reads at some time—most when they are children—and even Macauley draws some of his aptest illustrations from a quaint allusion to some such fairy tale.

15.—*The Halgan Godspel in Englisc.—The Anglo-Saxon Version of the Holy Gospels.* Edited by BENJAMIN THORPE, F. S. A., from the Original Manuscripts. Reprinted by LOUIS F. KLIPSTEIN, M. A., author of "A Grammar of the Anglo-Saxon Language," "Analecta Anglo-Saxonica," etc. New York: Wiley & Putnam.

The first edition of the Anglo-Saxon version of the four Gospels was printed at London in 1571, with a dedication to Queen Elizabeth, by Foxe, the martyrologist. The second was printed at Dordrecht in 1665. This reprint is laid before the public with the hope that it may conduce to the study of the language of our forefathers, as well as to a still higher purpose.

16.—*A Sermon occasioned by the Death of Hon. John Davis, LL. D., and preached in the Federal Street Meeting House in Boston, January 24, 1847.* By EZRA S. GANNETT, Minister of the Federal Street Society. 8vo., pp. 48. Boston: William Crosby and H. P. Nichols.

A beautiful tribute to the memory of a good man, not unworthy of the pulpit consecrated by the eloquence and power of the sainted Channing.

17.—*The Prose-Writers of America, with a Survey of the History, Condition, and Prospects of American Literature.* By RUFUS WILMOT GRISWOLD. Illustrated with Portraits from Original Pictures. 8vo., pp. 552. Philadelphia: Carey & Hart.

The present volume is designed to exhibit a general view of the actual state and future prospects of the literature of the country, and also brief portraitures of those individuals who have become most distinguished as prose-writers in this department of intellectual enterprise. It accordingly contains biographical sketches of those persons who seem to have attained the most eminence in the various branches of literary effort, with criticisms upon their writings, and quotations of the most select passages from their several works. We have among the list not only the names of literary men in the narrow and technical sense in which the term is understood, or that class who devote themselves to literature as an exclusive pursuit, but also those of orators, statesmen, jurists, theologians, and others whose desultory efforts appeared worthy of permanent record. It must of course be expected that in so large an array of names there will be found various degrees of merit; that there will appear the productions of those who have established a solid reputation as wide as the domain of public intelligence, as well as those who have made the pursuit of letters an occasional occupation, without aspiring to the more lofty niches in the temple of fame. Yet the whole work presents a rather favorable specimen of the various powers of the prose-writers of the nation, and shows us that we possess much native ability of this sort, which requires only to be developed. The execution of the work is, on the whole, moreover, creditable to its author and compiler, and is illustrated with engravings of Washington Irving, Mr. Justice Story, Jonathan Edwards, William H. Prescott, Ralph Waldo Emerson, Charles F. Hoffman, and other prominent writers of the country.

18.—*Modern Chivalry, or the Adventures of Captain Farrago, and Teague O'Regan.* By H. H. BRACKENRIDGE. 2 vols., 12mo., pp. 381. Philadelphia: Carey & Hart's "Library of Humor."

This is the second edition of this work which has been published since the author's death, in 1816. It embraces a biographical notice, a critical disquisition on the work, and explanatory notes. "Modern Chivalry" is a thoroughly American work—a political satire—its scenes, characters, incidents, all spring from the soil with "a raciness unequalled by any other American production, previous to its appearance." The designs by Darley are capital—and, on the whole, we consider the present one of the best of the publishers' series of "Humorous American Works."

19.—*A Dictionary of the English Language, abridged from the American Dictionary.* By NOAH WEBSTER, LL. D. Revised Edition. Containing several thousand additional words from the last edition of the larger work, important Etymologies, Rules for the Orthography and Pronunciation of Words, the Accented Vocabularies of Walker's Key to the Classical Pronunciation of Greek, Latin, and Scripture Proper Names; Tables of Moneys, and of Weights and Measures, with a Memoir of the Author. 8vo., pp. 546. New York: Huntington & Savage.

The great work of Mr. Webster, the American Dictionary, we need hardly remark, has attained the highest reputation as a sound authority upon the English language, both in our own country and in Europe. Had the learned author left no other memorial of his labors, it would constitute an enduring monument, which would bequeath his name to the latest posterity. It is remarked in the preface, that "in this second edition the principal object has been to furnish a work to those numerous classes of the community who want for consultation something above an ordinary school dictionary, but who are not disposed to purchase Webster's larger works." It will doubtless have a deserved and wide circulation.

20.—*The History of Oregon and California, and the other Territories of the Northwest Coast of North America, from their Discovery to the Present Day, accompanied by a Geographical View of those Countries, and a number of Documents as Proofs and Illustrations of the History.* By ROBERT GREENHOW, author of a Memoir, Historical and Political, on the Northwest Coast of North America, published in 1840, by direction of the Senate of the United States. 8vo., pp. 400. New York: J. Disturnell.

This is the fourth edition of a most valuable work, revised, enlarged and corrected. Its author has with persevering diligence examined the ancient records that were calculated to throw light upon his subject, and has exhibited it in a satisfactory form. From the political circumstances now pending respecting the territories of which it treats, it is peculiarly valuable at the present time. The historic researches of the author have been heretofore cited with much respect in the discussions of Congress relating to those countries, and we are gratified to learn that they have been received with so much favor by the public. The style is very clear and condensed, and the volume is accompanied by a general index, which conveniently points out the matter of the text.

21.—*Marriage: its History and Ceremonies; with a Phrenological and Physiological Exposition of the Functions and Qualifications for Happy Marriages.* By L. N. FOWLER. 12mo., pp. 216. New York: Fowler & Wells.

The present work furnishes a comprehensive history of marriage, and a description of the methods and customs adopted by different nations and tribes, from the commencement of the world to the present time, touching their sexual feelings and social relations. The main body of the work, however, is devoted to an exposition of man's social nature, as explained and developed by Phrenology and Physiology. The subject is one of vast importance; and the information this treatise contains, were it more generally diffused, would prevent many of the miseries of the matrimonial alliance, besides incalculably advancing the physical, social and moral progress of man and society. The wood-cuts, although they serve to illustrate the subject, and render it more familiar, are by no means executed with the neatness and ear that should characterize the illustrations of a work, in other respects, so truly valuable.

22.—*History of the Roman Republic.* By J. MICHELET, Member of the Institute, author of "History of France," "Life of Luther," "The People," etc. Translated by WILLIAM HAZLETT, Esq., of the Middle Temple, Barrister at Law. 12mo., pp. 404. New York: Appleton's Library Miscellany.

"This book is a history, and not a dissertation." So says M. Michelet, who, (we quote from a former reviewer,) first introduces the reader to the Ancient Geography of Italy; then, by giving an excellent picture of the present state of Rome and the surrounding country, full of grand ruins, he excites in the reader the desire to investigate the ancient history of this wonderful land. He next imparts the results of the latest investigations, entire, deeply studied and clearly arranged, and saves the uneducated reader the trouble of investigating the sources, while he gives to the more educated mind an impetus to study the literature from which he gives very accurate quotations in his notes. He describes the peculiarities and the life of the Roman people in a masterly manner, and he fascinates every reader by the brilliant clearness and vivid freshness of his style, while he shows himself a good historian, by the justness and impartiality with which he relates and philosophizes."

23.—*The Fairy Bower, or the History of a Month, a Tale.* 12mo., pp. 310. New York: D. Appleton & Co. Philadelphia: George S. Appleton.

A domestic tale, which may be viewed as a successful attempt, rather to represent characters as they really are, than to exhibit moral portraitures for universal imitation or avoidance. It aims at the real rather than the ideal, and though it may not possess the poetical beauty of the latter, it has this advantage over it, inasmuch as it introduces young persons to those scenes and situations of life, which are their actual sphere and trial. The present American edition is from the third London; a fact that speaks well for its popularity at home—and it forms, on the whole, no unworthy addition to the "Literary Miscellany" of the publishers.

24.—*Massachusetts State Record and Year-Book of General Information,* 1847. 12mo., pp. 280. Boston: James French. New York: M. H. Newman & Co.

This work is emphatically what its title implies, a record-book of the State; but while its chief object is to furnish information in regard to Massachusetts particularly, it embraces a mass of useful information in reference to other States and countries, that imparts to it more than a local habitation or value. Besides the usual almanac and diary, it contains a list of all the officers in the State, the principal traders and merchants in each town, the names and residence of attorneys and counsellors at law, banks, insurance companies, with valuable statistical tables, and, indeed, an amount and variety of information in every department of statistics, the bare enumeration of which would occupy two or three pages of our journal. The editor of the work, NAHUM CAPEN, Esq., has evinced in its preparation a degree of research, industry, and ability, that is rarely brought to bear on works of this class. It is, on the whole, one of the best digested State registers ever before produced.

25.—*The Genius of Scotland; or, Scottish Scenery, Literature and Religion.* By Rev. ROBERT TURNBULL. 12mo., pp. 379. New York: Robert Carter.

The author of this work was born and educated in Scotland, and his object in the present volume is to "give to the people of this country a just idea of his native land." The volume embraces descriptions of scenery, with literary and biographical sketches, portraitures of character, moral and religious, incidents of travel, and reflections on matters of local or general interest. Many things which a tourist would not fail to notice are omitted, but their place is supplied with sketches of more enduring interest. The notices of Knox, Burns, Wilson, Chalmers, Bruce, Scott, and others, enliven the author's rambles through "fair or classic scenes." Without any remarkable degree of originality in matter or manner, Mr. T. has contrived to give the reader, in an easy and natural way, quite a readable conception of the scenery, literature, and religion of Scotland.

26.—*The Office and Work of the Holy Spirit.* By JAMES BUCHANAN, D. D., Professor of Divinity, New College, Edinburgh. 12mo., pp. 519. New York: Robert Carter.

Dr. Buchanan is a distinguished divine of the Scotch Church; and the present work elaborately sets forth "the Spirit's work in the conversion of sinners," and the classification of those who are converted, to what the author considers evangelical religion. His illustrations are drawn from the Scriptures, and the doctrine he inculcates enforced by an array of argument that will doubtless satisfy a large class of the Christian world. The works published by Mr. Carter, we need scarcely repeat in this place, are uniformly printed on fine paper, and handsomely bound.

27.—*Manual of the Corporation of the City of New York, for the year* 1847. By D. T. VALENTINE. 18mo., pp. 386. New York: Casper C. Childs.

This volume is prepared in accordance with a vote of the city government. The compiler is the city clerk, who has embodied in its pages every particular, in regard to our city officers, of interest to the government and our citizens generally. No adequate idea can be formed of the work, without an examination of the table of contents, and for that we have not space; but must ask our merchants and business men, and particularly those who wish to obtain correct information on city affairs, to examine the book, which can be done by applying to the Clerk of the Common Council. It should find a place in every public office, and every counting-room of New York.

28.—*History of Wyoming, in a Series of Letters from Charles Miner to his Son, William Penn Miner.* 8vo., pp. 600. Philadelphia: Crissy & Markley.

The beautiful valley of Wyoming has long been distinguished for its mineral resources, and the historical circumstances of its early colonization, and particularly as the scene of a horrid massacre, black with cruelty, and crimsoned with blood. It has moreover been rendered classic ground by the "Gertrude" of Campbell, one of England's undying poets. In the work before us, the worthy author, whose long residence in this interesting section of Pennsylvania, and whose familiar association with its prominent interests seem peculiarly to have qualified him for the labor, has exhibited the strongly marked features of its history in a very satisfactory manner. The exaggerated statements of former writers, touching the massacre, are corrected; and, altogether, we have a narrative based upon the most authentic documents, and the verbal statements of persons who were familiar with many of the events recorded. Although the immediate scene of the work is rather circumscribed, the events connected with it are of deep and thrilling interest. Indeed, we can scarcely point to a local history that presents more startling facts.

29.—*The Poetical Works of Percy Bysche Shelley.* Edited by Mrs. SHELLEY. Royal 8vo., pp. 391. Philadelphia: Crissy & Markley.

Mrs. Shelley, in her introduction to the poems of her husband, pays an unaffected and beautiful tribute to his memory. She says he was generous to imprudence, devoted to heroism, and that these characteristics breathe throughout his poetry. "The struggle for human weal; the resolution firm to martyrdom; the impetuous pursuit; the glad triumph in good; the determination not to despair—were the features that marked those of his works which he regarded with most complacency, as sustained by a lofty aim." She divides his poems into two classes—the purely imaginative, and those which sprung from his heart. The second class, the more popular, appeal at once to emotions common to us all. Some of these rest on the passion of love; others on grief and despondency, and others on sentiments inspired by natural objects. Whatever may be the difference of opinion as to the character and tendency of some of his poems, no one would be willing to detract from the genius and power of the poet. The present, the first octavo edition that has been published in this country, is printed on a fine white paper, with a bold, handsome type; furnishing, altogether, a most beautiful volume for the library.

30.—*The Book of the Feet: a History of Boots and Shoes, with Illustrations of the Fashions of the Egyptians, Hebrews, Persians, Greeks, and Romans, and the Prevailing Style throughout Europe, during the Middle Ages, down to the present period; also, Hints to Last-Makers, and Remedies for Corns, &c.* By J. STARKS HALL, Patent Elastic Boot-maker to her Majesty the Queen, the Dowager, and the Queen of the Belgians. From the Second London Edition, with a History of Boots and Shoes in the United States, Biographical Sketches of Eminent Shoe-makers, and Crispin Anecdotes. 12mo., pp. 216. New York: J. S. Redfield and William H. Graham.

Mr. Hall, "Patent Elastic Boot-maker to her Majesty," the reigning Queen of England, says he has given the result of his experience, derived from twenty years practical acquaintance with this department of trade. The volume embraces the history of boots, shoes, &c., from the earliest time, and treats of the structure of the human foot, the method of making lasts, curing corns, &c. In addition to all the matter in the London edition, the American editor has subjoined a history of boots and shoes in the United States, and numerous biographical sketches of distinguished boot and shoe-makers—men of genius, talents, and worth, who have occupied eminent stations among their fellow-men.

31.—*An Elemental Treatise on Analytical Geometry: Translated from the French of J. B. Biot, for the Use of the Cadets of the Virginia Military Institute, at Lexington, Va., and adapted to the Present State of Mathematical Instruction in the Colleges of the United States.* By FRANCIS H. SMITH, A. M., Superintendent and Professor of Mathematics of the Virginia Military Institute; late Professor of Mathematics of Hampden Sydney College, and formerly Assistant Professor in the United States Military Academy at West Point. 8vo., pp. 252. Philadelphia: Thomas, Cowperthwait & Co.

The design of this work is to furnish a text-book, which may be readily embraced in the usual collegiate course without interfering with the time devoted to other subjects; while, at the same time, it contains a comprehensive treatise on the subject of which it treats. The original work, of which this is a translation, was for many years the text-book in the United States Military Academy at West Point. It is, we believe, justly regarded as the best treatise on analytical geometry that has yet appeared.

32.—*Hartman's Theory of Acute Diseases, and their Homœpathic Treatment.* Third German Edition. Revised, and considerably enlarged by the author. Translated, with Additions, and adapted to the use of the American Profession, by CHARLES J. HEMPEL, M. D. Volume I. 12mo., pp. 272. New York: William Radde.

This is, we believe, the first systematic exposition of the treatment of acute diseases published by the homœpathic physicians; and yet their success in those diseases is considered the most marked and certain. This omission is probably owing in part to the inherent difficulty of the undertaking, and partly to the remark of Hahnemann, that no treatment can be based upon the classification of diseases as adopted by the old school. Dr. Hartman, the author of the present treatise, practised homœpathy for twenty-eight years, and with great success. Though the work is designed for medical men, we commend it to all inquirers after truth—to all who are not wedded to the errors of the past. The second volume of Hartman's Acute Diseases is in press, and will soon be published.

33.—*History of the Reformation in England.* By Rev. J. A. Spencer, A. M., author of "The Christian Instructed in the Ways of the Gospel and the Church," etc. 18mo., pp. 265. New York: Stanford & Swords.

This is the most condensed history of the "Reformation in England" that we have seen. Mr. Spencer, the author, is an accredited minister of the Protestant Episcopal Church in this country, and we believe the present work is approved by "high" and "low" churchmen; at least it has received the favorable notice of the journals of each party. The features that will commend it to popular reading are, its precision, brevity, and comprehensiveness. It is printed in a bold, handsome type, and forms, altogether, a very neat volume.

34.—*The Churchman's Reasons for his Faith and Practice, with an Appendix on the Doctrine of Development.* By Rev. N. S. Richardson, A. M., author of "Reasons Why I am a Churchman," etc. New York: Stanford & Swords.

The object of this treatise is to bring before the mind of the reader a distinct view of what the author, who is an Episcopalian, considers the "Church of Christ;" and also the leading arguments by which the more prominent points of that Church are defended. The distinctive features of the Church are set forth with earnestness; and, as the author "trusts, under the chastening influence of the responsibility which he necessarily assumes, who, in the midst of a distracted world, claims to be a sure guide in the way of the Church, to a haven of rest and peace."

35.—*The Modern Standard Drama; A Collection of the most Popular Acting Plays, with Critical Remarks; also, the Business of the Stage, Costumes, etc.* Edited by Epes Sargent, author of "Velasco, a Tragedy," etc. Vol. IV. New York: William Taylor & Co.

The volume before us contains eight popular plays, viz: Virginius, by James Sheridan Knowles; the King of the Commons, by the Rev. James White; London Assurance, by Dion L. Bourcicault; the Rent Day, by Douglas Jerrold; Shakspeare's Two Gentlemen of Verona; the Jealous Wife, by George Colman; the Rivals, by Richard Brinsley Sheridan; and Perfection, or the Maid of Munster, by Thomas Haynes Bayly. Each play is introduced by critical notices from the pen of Mr. Sargent, the editor, as also a biographical sketch of James H. Hackett, with a handsome portrait.

36.—*Christian Consolations. Sermons designed to Furnish Comfort and Strength to the Afflicted.* By A. P. Peabody, Pastor of the South Church, Portsmouth, N. H. 18mo., pp. 312. Boston: William Crosby and A. P. Nichols.

We have in this volume twelve discourses, selected from the author's "common parish sermons," written at wide intervals of time, and many of them with reference to individual cases of affliction. Although the range of subjects is wider than the title would seem to authorize, many of them are peculiarly pertinent to the subject, and all possess a bearing upon the leading idea indicated by the title. They possess more originality of thought than many volumes of sermons that are published; and as literary compositions, they will bear a favorable comparison with our best English essayists. Their freedom from sectarian peculiarities should secure for the volume a circle of readers more numerous than that to which their author belongs.

37.—*Rory O'More. A National Romance.* By Samuel Lover, Esq., author of "Legends and Stories of Ireland," etc. With illustrations by the author. 12mo., pp. 275. Philadelphia: Lea & Blanchard.

Like everything from this versatile writer, this romance is rich in descriptions of Irish character, rich humor and innocent drollery. If laughing is conducive to health, let lean, melancholic invalids read Lover —"laugh and grow fat." "An ounce of mirth is worth a pound of sorrow."

38.—*The Elements of Theology; or, The Leading Topics of Christian Theology, Plainly and Scripturally Set Forth, with the Principal Evidences of Divine Revelation Concisely Stated; with Questions for the Use of Families, Bible Classes, and Seminaries of Learning.* By Daniel Haggell, A. M. 18mo., pp. 261. New York: Lewis Colby & Co.

The design of this work is, after a concise proof of the existence of God from creation, to set forth the evidence of a Divine Revelation contained in the two Testaments, or Bible. The attributes of God, the primitive and present character of man, his recovery, the agency of creatures connected with this recovery, and what befalls man at and after death, are the subjects discussed; tinctured, of course, with the peculiar views of the writer, who holds the popular orthodox theology of the day.

39.—*The Rose Culturist, a Practical Lecture on the Cultivation and Management of the Rose.* 18mo., pp. 125. New York: William H. Starr.

This appears to be a very complete treatise on the rose in all its varieties, and furnishes just that kind of information required for its successful cultivation.

40.—*The Traveller: or Wonders of Nature.* 18mo., pp. 202. New York: M. W. Dodd.

The wonders of nature, as displayed in mountains, volcanoes, precipices, caverns, earthquakes, deserts, rivers, cataracts, whirlpools, whirlwinds, and waterspouts, are familiarly described in this instructive little volume, which is admirably adapted to the taste and capacity of children.

41.—*Floral Gems, or Songs of Flowers.* By Mrs. J. Thayer, author of "The Vocation," "Passion," &c. 32mo., pp. 128. Boston: James French.

Each flower, that opens its portals to the sun, imparts its appropriate social or moral lesson. The selection of emblems from the floral creation is made with taste, and the poetic illustrations from some of our sweetest poets express the silent teaching of flowers in their almost infinite beauty and variety.

HUNT'S

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HUNT'S

# MERCHANTS' MAGAZINE.

JUNE, 1847.

## Art. I.—COMMERCE OF FRANCE IN 1845.

A GENERAL REVIEW OF THE COMMERCE OF FRANCE WITH ITS COLONIES, AND WITH FOREIGN POWERS, DURING THE YEAR 1845.*

THE *Tableau General du Commerce de la France*, is a "public document" published annually by the custom-house department of the French government, exhibiting, in tabular form, full and detailed statistics of the commerce of France during the previous year. The Report, for 1845, is a folio of some 700 pages, the contents of which are digested and exhibited in brief form, in twenty tables, which, with some general observations prefixed, referring to each table, are placed at the beginning of the work, under the title of Analytical Summary. These general observations we now lay before the reader. The terms "general commerce" and "special commerce," which frequently occur in the course of them, are explained in the Merchants' Magazine for May, 1846, Vol. XVI., p. 467, where may be found, also, a translation of the like summary of French commerce for 1844. It is sufficient, at present, to state, that the term general commerce, as technically used in these reports, embrace every branch of commerce, as well the carrying trade through France, as importation for home consumption, and exportation of home products and of

* For similar reviews of the commerce of France, for the years 1843 and 1844, see Merchants' Magazine for July, 1845, Vol. XIII., No. 1, pp. 26 to 37, and Vol. XVI, No. 5, for May, 1847, pp. 476 to 486. For an elaborate article on the trade and commerce of France, from 1827 to 1840, with full and complete tabular statements, derived from the French official documents, we refer the reader to the Merchants' Magazine for September, 1842, Vol. VII., No. 3, pp. 229 to 241. Also, to same work, for May, 1843, Vol. VIII., No. 5, pp. 435 to 439, bringing the commerce of France down to 1841, and the present paper to 1845. For the official documents, furnishing the materials for these papers, we are indebted to M. D. L. Rodet, a distinguished political economist, residing at Paris.—[ED. MER. MAG.]

such foreign products as have paid import duties and are re-exported. The term special commerce, designates importation for home consumption and exportation of home products, and excludes the carrying trade.

General and Special Commerce. The general commerce of France with the colonies and with foreign powers, in 1845, again presents results more favorable, on the whole, than those of previous years.

In value, it has risen to the considerable amount of 2,427,000,000* francs; of which, there were imports, 1,240,000,000 francs; exports, 1,187,000,000 francs.

Compared with the movement of 1844, and taking imports and exports together, there is an increase of 88,000,000 francs, or 4 per cent. Compared with the average of the four years preceding 1845, there is an increase of 257,000,000 francs, or 12 per cent.

In imports, the advance is 4 per cent on those of 1844, 9 per cent on the average of the last five years; the advance in exports, is 4 and 15 per cent on those periods respectively.

The special commerce of France, or that which, on the one hand, imports foreign products for home consumption, and on the other hand sends home products abroad, amounted, in value, to 1,704,000,000 francs, which is higher, by 47,000,000 francs, or 3 per cent, than the figure of 1844—by 167,000,000 francs, or 11 per cent, than that of the average of five years preceding. The value of foreign goods entering into consumption in France, was 11,000,000 francs, or one per cent less than that of the imports of, but greater, by 34,000,000 francs, or 4 per cent, than the average figure of the last five years. On the other hand, the export of French products has, at the same time, increased 58,000,000 francs, or 7 per cent, on 1844, and 133,000,000 francs, or 19 per cent, on the average of five years.

Commerce by Land and by Sea. With reference to the two great

---

* The following table exhibits the general course of the foreign commerce of France, during the last 15 years, in periods of 5 years. The excess of the 2d period over the 1st, is 34 per cent; of the 3d over the 1st, 61 per cent; and of the 3d over the 2d, 20 per cent:—

| | Years. | Imports. | Exports. | Total. |
|---|---|---|---|---|
| First Period..... | 1831..... | 518,000,000 | 618,000,000 | 1,131,000,000 |
| | 1832..... | 653,000,000 | 696,000,000 | 1,349,000,000 |
| | 1833..... | 693,000,000 | 766,000,000 | 1,459,000,000 |
| | 1834..... | 720,000,000 | 715,000,000 | 1,435,000,000 |
| | 1835..... | 761,000,000 | 834,000,000 | 1,595,000,000 |
| | Total..... | 3,340,000,000 | 3,629,000,000 | 6,969,000,000 |
| Second Period.... | 1836..... | 906,000,000 | 961,000,000 | 1,867,000,000 |
| | 1837..... | 808,000,000 | 758,000,000 | 1,566,000,000 |
| | 1838..... | 937,000,000 | 956,000,000 | 1,893,000,000 |
| | 1839..... | 947,000,000 | 1,003,000,000 | 1,950,000,000 |
| | 1840..... | 1,052,000,000 | 1,011,000,000 | 2,063,000,000 |
| | Total..... | 4,650,000,000 | 4,689,000,000 | 9,339,000,000 |
| Third Period.... | 1841..... | 1,121,000,000 | 1,066,000,000 | 2,187,000,000 |
| | 1842..... | 1,142,000,000 | 940,000,000 | 2,082,000,000 |
| | 1843..... | 1,187,000,000 | 992,000,000 | 2,179,000,000 |
| | 1844..... | 1,193,000,000 | 1,147,000,000 | 2,340,000,000 |
| | 1845..... | 1,240,000,000 | 1,187,000,000 | 2,427,000,000 |
| | Total..... | 5,883,000,000 | 5,332,000,000 | 11,215,000,000 |

branches of commerce—commerce by land and by sea—of the total value of imports and exports, say, 2,427,000,000 francs, there were carried by water, 1,736,000,000 francs, and carried by land, 691,000,000 francs; maritime commerce thus forming 72 per cent of the whole. This relative proportion between land carriage and water carriage, has but little varried during the last five years; but both these distinct branches of the commerce of France have been on the increase.

Maritime trade has advanced 5 and 11 per cent on the year preceding, and on the average of the five years past, respectively; the increase of land traffic is 1 and 13 per cent.

This two-fold progress extends to both imports and exports. The import maritime trade has gained 5 and 7 per cent; import land traffic, 2 and 13 per cent; the export maritime trade, 5 and 16 per cent; the export land traffic, 1 and 13 per cent, as compared with the last year, and the average of the five years preceding.

MARITIME TRADE. Of the amount of 1,736,000,000 francs, forming the sum total of merchandise imported and exported by sea, there were carried in French vessels, 808,000,000 francs, or 46½ per cent; foreign vessels, 928,000,000 francs, or 53½ per cent.

The relative proportion between French and foreign flags, in 1844, was 46 and 54 per cent.

Of the 808,000,000 francs, forming the value of goods carried in French vessels, we have, under the head of privileged navigation, 284,000,000 francs, or 14 per cent more than in the previous year; open commerce, 524,000,000 francs, or 2 per cent more than in 1844.

Of the different branches of commerce exclusively confined to French bottoms, but one presents, in the value of goods transported, a sensible increase, amounting to 33 per cent; it is the French trade with Algeria.

COUNTRIES TRADED WITH. The countries which have dealt most largely with France, in 1845, are the United States, England, Switzerland, Belgium, the Kingdom of Sardinia, the German Customs Union, Spain, Russia, and Turkey.

The value of French commerce with these countries forms 72 per cent for the entire commercial movement of the year; the proportion, in this respect, being the same as in 1844.

The course of trade with each of these powers, in particular, was as follows:—

There was an increase in the trade with Russia, of 4 per cent; Switzerland, of 5 per cent; Belgium, of 14 per cent; Turkey, of 2 per cent.

There was a falling off in the trade with England, of 1 per cent; Sardinia, of 8 per cent; Spain, of 12 per cent; Russia, of 1 per cent.

The amount of trade with the Customs Union alone, of all the above States, remained the same both years.

The trade of France with almost all the other powers, has improved; more particularly with the Two Sicilies, Sweden, Norway, the Papal States, Peru, Portugal, Greece, Egypt, Austria, Denmark, and the countries beyond the Sound.

The French colonies have contributed to this advance, at the following rates of increase: Senegal, 60 per cent; French possessions in India, 9 per cent; Algeria, 31 per cent; Bourbon, 9 per cent; Martinique, 5 per cent; Guadaloupe, 1 per cent.

There has been a falling off, in 1845, in the French trade with the

English possessions in India, Tuscany, the Hanseatic Towns, Mexico, Rio de la Plata, and Hayti.

COUNTRIES IMPORTED FROM. The value of the imports from the United States, was 172,000,000 francs, or 14 per cent of the aggregate of importations. Of this amount, 141,000,000 francs are for merchandise imported for home consumption.

Compared with the preceding year, and with the average of the five years preceding, the trade with the United States exhibits an increase in general commerce, of 21 and 4 per cent; special commerce, of 5 and 8 per cent.

The value of goods imported from England, was 139,000,000 francs; of which 85,000,000 francs are for merchandise which remained in France. Since 1842, when the import trade with England reached the value of 154,000,000 francs, it has gradually fallen off. The diminution was 4 per cent in general commerce, and 7 per cent in special commerce, as compared with the year previous; 1 per cent in general, and 9 per cent in special commerce, as compared with the average of five years previous.

Belgium holds only the third place among nations in the general commerce of import into France, but ranks second among those from which France has imported for home consumption.

The value of these exports to France, was 117,000,000 francs; at no period has the special import trade with that power reached so high a figure; it exceeds, by 13 and 30 per cent, that of the two periods adopted for comparison.

Switzerland exported to France, to the amount of 104,000,000 francs; of this, 27,000,000 francs are of special commerce. There has been an advance of 5 and 30 per cent in this, and of 10 and 14 per cent in general commerce.

Sardinia, the German Customs Union, and Russia, exported less to France than in 1844. In articles for home consumption, the falling off is, for the first, 21 per cent; the second, 5 per cent; and the third, 20 per cent.

There was scarcely any fluctuation in the imports from Spain and Tuscany. The exports from the Hanseatic Towns have fallen off 28 per cent; from Austria, 22 per cent; and from the Low Countries, 15 per cent.

With most of the other powers, the import trade of France has been on the increase. This is particularly the case with Turkey, the Two Sicilies, Norway, Egypt, Sweden, the Western coast of Africa, China, Cochin-China and Oceanica, Portugal, the Papal States, and Greece.

An increase is also remarked, in the imports into France, for its colonies, of 70 per cent from Algeria; of 51 per cent from Senegal; of 14 per cent from Bourbon and Guadaloupe; of 12 per cent from Martinique.

COUNTRIES EXPORTED TO. The export trade to the United States was not so great as in 1844. It has fallen, in general commerce, from 161,000,000 francs, to 143,000,000 francs; in special commerce, from 102,000,000 francs, to 97,000,000 francs. Comparing with the average of the last five years, we have an increase of 8 and 15 per cent in favor of 1845.

Exports to England have risen in value to 148,000,000 francs. This is 4,000,000 francs more than in 1844; 3,000,000 less than the average of the five years previous. Of this amount of 148,000,000 francs, the

products of France comprise 110,000,000. This latter amount is greater by 11,000,000 francs, than the value of French products exported to England in 1844.

Belgium recieved from France, of the products of different countries, 29 per cent, and of French products, 24 per cent more than during the year previous.

The French export trade to Algeria, continued to increase in 1845. It reached the value of 99,000,000 francs; of which the products of the soil and industry of the mother country comprise 89,000,000 francs. The increase is particularly noticeable since the beginning of 1844. Before then, the amount of French product sent to the African colonies, did not exceed 16,000,000 francs. Algeria is at present one of the best markets for French exports. In this respect, it ranks in the third place.

There was an increased demand for French products in the Hanseatic Towns, Turkey, the Two Sicilies, the Papal States, Austria, Portugal, and Mecklenburg-Schwerin. Inconsiderable, hitherto, the export trade to countries beyond the Sound reached the amount of 1,500,000 francs in 1845.

The export trade to the French colonies, Antilles and Bourbon, as well as to Tuscany, Mexico, Rio de la Plata, Hayti, and Egypt, has been less active since 1844.

Articles of Import. Of the whole value of imports into France, raw materials necessary to manufactures comprise 678,000,000 francs; of which, 612,000,000 francs' worth were used in domestic consumption.

The value of products imported for consumption in the natural state, was 264,000,000 francs; of manufactured products, 208,000,000 francs. The former, to the extent of 188,000,000 francs, entered into domestic consumption; the latter form an item of 57,000,000 francs in special commerce.

Compared with 1844, and the average of five years, there is an increase in the import of materials, necessary in manufactures whether for domestic use or otherwise, in general commerce, of 8 per cent; in special commerce, only 2 and 6 per cent.

There has been a falling off of 13 per cent in the consumption of articles in the raw state. The special importation of manufactured goods exceeded that of the two periods adopted for comparison, by 5 per cent.

Cotton and silk take the lead among raw materials imported. The value of raw cotton imported was, in general commerce, 129,000,000 francs; in special commerce, 108,000,000 francs.

The value of cotton imported in 1844, was but 111,000,000 francs; that of cotton consumed, but 105,000,000 francs. The increase is 17 per cent in general, and 3 per cent in special commerce. During the same year, the value of silk imported was but 103,000,000 francs; that of silk consumed, 61,000,000 francs. The increase in this article is 5 and 6 per cent.

Of 71,000,000 francs' worth of wool, imported into France, 50,000,000 francs' worth were absorbed in domestic manufactures. This is, 1,000,000 francs more than in 1844; 5,000,000 more than the amount of the average of the last five years.

The value of hard coal imported for home consumption was 30,000,000 francs. This is an advance of 25 per cent on the preceding year.

The value of sugars imported from the French colonies was 64,000,000

francs; 57,000,000 francs were paid for in value. These figures were not reached at any period of the last five years.

Oleaginous grains for home consumption, reached the value of 39,000,000 francs, in 1844, which has risen to 46,000,000 francs, in 1845.

On the other hand, the value of cereal grains which have paid duties has fallen from 51,000,000 francs, in 1844, to 16,000,000, in 1845, say 69 per cent.

The value of linen and hempen thread that entered into consumption was 28,000,000 francs, which is 4,000,000 francs, or 14 per cent less than in 1844.

There was no sensible variation in the value of olive oil, coffee, lead, cast iron in the mass, bars, clock-works, exotic woods, silk goods, rice, horses, and cattle.

A slight increase is perceived in the import of leaf-tobacco, foreign sugar, zinc and tin.

There is a noticeable increase, also, in the importation of copper; the value that entered into consumption was 6,000,000 francs more than in 1844.

There was a falling off comparatively slight in the import trade in indigo, cochineal, flax, hemp, tallow, and fat.

Articles of Export. The value of exports was 1,187,000,000 francs, in general commerce; of which 381,000,000 francs are for products in the natural state, and 806,000,000 for manufactures.

Of this amount, the value of the products of the soil and industry of France is 848,000,000 francs; of which 210,000,000 form the value of products in the natural state, and 638,000,000, that of manufacture.

There was an increase in both the general and special commerce of France, in 1845, whether compared with the previous year, or the average of the last five years. This increase, which in general commerce, in the export of merchandise, is 6 and 10 per cent, in the export of products in the natural state, rises to 11 and 12 per cent, taking into view only the products of the French soil; 3 and 10 per cent in the export of manufactured goods in general, and 6 and 21 per cent in the export of the national fabrics of France.

Among natural products, the export trade in which has increased, that in wines has advanced 3,000,000 francs, or 6 per cent; cereal grains, 6,000,000 francs; madder, 3,000,000 francs, or 30 per cent. The export of brandies has not been so brisk; however, it has come within 200,000 francs of the figure of 1844.

The export of French manufactures continues to exhibit an advance. Cotton fabrics may be cited as an instance, the export of which has increased 18,000,000 francs. The value of cotton and woollen threads exported, 7,000,000 francs, or 340 per cent greater than before. In previous years it never went beyond 2,000,000 francs.

The value of refined sugars exported was 9,000,000 francs, or 110 per cent greater than in 1844.

An increase less considerable is also noticed in the export of paper, glass-ware and crystals, metal works, machinery, and tools.

There is a falling off of 3,000,000 or 4,000,000 francs, in the export of silk, linen, and hempen fabrics.

Transit Trade. The value of goods carried through France in the transit trade, was 212,000,000 francs; the weight, 432,940 metrical quin-

tals; or 8 per cent more, both as to weight and value, than in 1844, a year yet unequalled in its results.

As in preceding years, the transit trade in cotton and silk fabrics, silk, woollen fabrics, and cotton, has fallen off in value.

Cotton, castings, iron and steel, coffee, refined sugar, cotton fabrics, and raw and clayed sugars, comprise in weight more than half of the transit trade. Of these articles, cotton and cotton fabrics alone exhibit an increase; the advance is 23 and 7 per cent on 1844; refined sugar has fallen off 46 per cent; metals and coffee, 21 and 8 per cent.

Switzerland, the German Customs Union, Belgium, the United States, and Sardinia, have contributed the most to the transit trade of France, at the place of import.

The marked falling off in the aggregate of the carrying trade chiefly affected imports from the German Customs Union, the Sardinian States, and Belgium, and the exports to Spain, the United States, the Sardinian States, and England.

Warehousing. The weight of foreign goods warehoused was 9,927,622 metrical quintals; the value, 695,000,000 francs, an advance of 431,104 quintals, and 31,000,000 francs, on 1844.

Thirty-four per cent of the whole value of goods warehoused were bonded at Marseilles, and 33 per cent at Havre. Marseilles has fallen off 3 per cent; Havre has gained 4 per cent. There has been an increase, also, at Bordeaux, Lyons, Nantes, Dunkirk, Rouen, Metz, Calais, and Boulogne. A falling off in value has taken place at Bayonne, Toulon, Cette, Strasburg, Toulouse, and Orleans. The value of goods warehoused at Paris, was nearly the same in both years.

In weight, 40 per cent of the goods bonded were warehoused at Marseilles, and 24 per cent at Havre; the former losing 15, and the latter 24 per cent, on 1844. With something of a decrease in the quantity warehoused at Cette, Metz, Orleans, Toulouse, and Lyons, all the places of storage in France have shared in the upward tendency.

Bounties. Bounties or drawbacks on importation, have been paid out to the amount of 21,054,477 francs, exclusive of the bounties to the cod and whale fisheries, the regulation of which belongs to the department of commerce. This amount is 6,256,547 francs more than in 1844, and 8,463,800 francs more than the average of the last five years. This increase comes particularly from the exportation of refined sugars, on which the amount of bounties paid was 13,198,000 francs. Of this, 3,521,763 francs went to sugars from the French colonies, 2,607,626 francs to foreign sugars; both together, more than 6,000,000.

Hitherto, the export of cotton thread, with benefit of bounty, attracted little attention. But in 1845, there is an advance on 1844, in the quantity of the article exported, from 785 to 7,519 metrical quintals; the bounties paid have increased from 19,625 to 187,976 francs.

Cod and Whale Fishery. The cod and whale fishery did not turn out so well as in 1844. The returns were 391,296 metrical quintals of codfish, oil, and whalebone; 46,364 metrical quintals less than in 1844. Consequently, but 69,730 metrical quintals of cod were exported, instead of 100,281 quintals, the quantity exported in 1844.

One-half of these exports were to the French colonies, Guadaloupe and Martinique, and 22 per cent of the surplus to Italy.

Duties of every kind. The duties from every source received at

the custom-house, amounted to the sum total of 217,421,597 francs; of which the duties on imports amounted to 151,850,533 francs, on exports and navigation, and incidental receipts, 7,478,779; tax on the consumption of salt, 58,092,285.

The duties on imports yielded 263,728 francs less than in 1844, when the receipts were higher than ever before realized.

The decrease is chiefly in the receipts from the cereal grains, which yielded 5,500,000 francs less than in the previous year; flax and hempen thread show a falling off in the receipts of 500,000 francs. This decrease has not been entirely made up by the aggregate increase of receipts from other articles, such as colonial sugars, cotton-wool, wool, foreign sugars, and coal.

The duty on the consumption of salt yielded 1,401,132 francs more than in 1844. This increase is about the same in amount as the falling off in 1844, from the year previous.

The aggregate receipts from duties are 1,595,893 francs more than in the previous year. The duties were collected at the principal custom-houses in the following proportions:—

| | | | |
|---|---|---|---|
| Marseilles . . . . . | 37,594,000 francs, | or 17 | per cent. |
| Havre . . . . . | 27,802,000 " | 13 | " |
| Paris . . . . . | 23,325,000 " | 11 | " |
| Bordeaux . . . . . | 14,811,000 " | 7 | " |
| Nantes . . . . . | 14,004,000 " | 6 | " |
| Dunkirk . . . . . | 8,745,000 " | 4 | " |
| Rouen . . . . . | 6,222,000 " | 3 | " |
| Other custom-houses . . . | 85,019,000 " | 39 | " |

The commercial marine of France, employed in its import and export trade with the colonies and foreign powers, comprised 30,245 vessels, exclusive of vessels in ballast, measuring 3,572,000 tons. These results were never attained in preceding years.

Of the whole shipping, 42 per cent of the ships employed, and 39 per cent of the tonnage, was under the French flag. This is the same proportion as in 1844.

Of the 12,659 ships, measuring 1,398,000 tons, belonging to the French flag, 3,647 ships and 540,000 tons were employed in privileged commerce, and 9,012 ships, of the tonnage of 858,000 tons, were employed in navigation open to the competition of foreign powers. There was an addition of 209 sail, and 55,000 tons to the national shipping, and of 589 ships and 87,000 tons to foreign shipping.

The precise amount of the increase of the national marine of France, since 1844, is 898 ships, and 1 2,000 tons; the increase of the foreign marine was 1,120 ships, measuring 142,000 tons.

Of the aggregate shipping 6,287 were steam vessels, measuring 842,000 tons; this is 10 ships less than in 1844, but the tonnage is 92,000 tons greater.

The change in numbers is as follows:—There were 109 ships less, and 12,000 tons more employed under the French flag; 99 ships and 80,000 tons more under foreign flags.

We annex, from the French official report, tabular statements of the French export and import trade with the United States, Mexico, and Texas, in 1845, as follows:—

EXPORTS FROM FRANCE TO THE UNITED STATES IN 1845.

| | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Silk goods.....kilog. | 552,684 | £63,871,414 | 327,664 | £37,919,860 |
| Woollen goods ..... | 888,689 | 22,587,444 | 726,472 | 18,266,865 |
| Cotton goods..... | 467,171 | 10,896,000 | 335,242 | 7,210,295 |
| Wines.....litres | 9,617,970 | 3,681,786 | 8,889,628 | 3,588,343 |
| Manufactured skins.....kilog. | 94,946 | 3,487,620 | 94,945 | 3,487,580 |
| Cambric, lawn and lace..value | ..... | 3,199,123 | ..... | 2,605,886 |
| Crockery, glass and crystal... | ..... | 2,854,990 | ..... | 2,809,228 |
| Hair for spinning & hats.kilog. | 69,016 | 2,760,640 | 6,100 | 244,000 |
| Brandies and liquors....litres | 2,735,211 | 2,088,984 | 2,688,255 | 2,000,867 |
| Volatile & essential oils...kilog. | 19,502 | 1,950,200 | 16,733 | 1,673,300 |
| Haberdashery and buttons.... | 220,793 | 1,942,126 | 216,747 | 1,894,170 |
| Clock-works.....value | ..... | 1,827,569 | ..... | 92,195 |
| Straw-braids .....kilog. | 75,707 | 1,796,740 | 3,773 | 99,416 |
| Madder, ground & unground.. | 1,548,686 | 1,548,686 | 1,548,686 | 1,548,686 |
| Silk, unbleached and dyed..... | 17,206 | 1,489,296 | 1,329 | 1,123,255 |
| Pasteboard, paper, books, &c.. | 375,920 | 1,482,068 | 333,848 | 1,344,630 |
| General utensils .....value | ..... | 1,063,820 | ..... | 809,220 |
| Perfumery.....kilog. | 120,906 | 846,342 | 120,510 | 843,570 |
| Table fruits..... | 1,112,477 | 816,414 | 721,005 | 592 872 |
| Indigo..... | 33,582 | 688,431 | 42 | 861 |
| Olive oil ..... | 346,277 | 588,671 | 18,307 | 31,122 |
| Cream of tartar ..... | 352,747 | 581,775 | 256,720 | 433,207 |
| Fashions.....value | ..... | 550,491 | ..... | 544,001 |
| Cabinet furniture & toys.kilog. | 95,960 | 535,475 | 93,502 | 524,413 |
| Manufactured cork..... | 171,880 | 515,640 | 30,556 | 91,668 |
| Manufactures of India-rubber.. | 50,248 | 502,480 | 44,108 | 441,080 |
| Flax and hemp goods..... | 39,277 | 466,232 | 28,680 | 304,979 |
| Prepared skins. ..... | 72,439 | 453,677 | 66,571 | 408,701 |
| Pure gums..... | 316,987 | 443,782 | 2,432 | 3,405 |
| Ornamental feathers..... | 4,025 | 334,075 | 4,025 | 334,075 |
| Prepared medicines..... | 46,793 | 319,130 | 46,746 | 318,660 |
| Articles of Paris manufacture. | 34,173 | 300,100 | 34,173 | 300,100 |
| Musical instruments.....value | ..... | 294,579 | ..... | 284,612 |
| Wrought metals .....kilog. | 103,272 | 289,605 | 102,006 | 281,529 |
| Artificial flowers.....value | ..... | 283,699 | ..... | 283,699 |
| Jewelry.....kilog. | 228 | 267,492 | 168 | 114,150 |
| Straw hats..... value | ..... | 265,578 | ..... | 131,620 |
| Verdigris..... kilog. | 119,228 | 238,456 | 119,228 | 238,456 |
| Fish, in salt or oil..... | 93,600 | 234,000 | 93,600 | 234,000 |
| Furniture.....value | ..... | 210,641 | ..... | 206,746 |
| Other articles..... | ..... | 4,914,665 | ..... | 3,819,250 |
| Total..... | ..... | 142,969,935 | ..... | 96,484,572 |

IMPORTS FROM THE UNITED STATES INTO FRANCE.

| | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Cotton-wool .....kilog. | 67,898,149 | £122,216,668 | 56,642,326 | £101 956,025 |
| Leaf tobacco..... | 14,815,806 | 34,076,354 | 11,054,449 | 25,425,233 |
| Potash..... | 4,331,379 | 2,598,828 | 3,319,628 | 1,991,777 |
| Raw hides ..... | 1,872,580 | 2,210,033 | 1,688,651 | 1,978,309 |
| Whalebone..... | 423,879 | 1,483,576 | 266,185 | 931,647 |
| Rice..... | 3,523,732 | 1,182,042 | 3,579,986 | 1,204,544 |
| Oak staves..... No. | 3,508,764 | 1,095,154 | 3,811,037 | 1,203,645 |
| Raw tallow.....kilog. | 1,913,412 | 1,052,377 | 2,383,024 | 1,310,663 |
| Gold dust ..... ..... | 34,688 | 1,040,640 | 34,688 | 1,040,640 |
| Pig lead..... | 1,661,743 | 747,784 | 2,109,192 | 949,136 |
| Dye-woods .... ..... .... | 2,192,438 | 438,987 | 858,437 | 171,687 |
| Coffee ..... | 509,374 | 432,968 | 253,118 | 215,150 |

IMPORTS FROM UNITED STATES INTO FRANCE—CONTINUED.

| | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Quercitron.....kilog. | 1,089,596 | f.374,254 | 778,010 | f.280,083 |
| Cochineal..... | 9,824 | 294,720 | 10,373 | 311,193 |
| Unrefined sugar..... | 399,417 | 190,951 | 50,363 | 22,689 |
| Raw yellow wax ..... | 82,689 | 165,378 | 87,986 | 175,972 |
| Pitch and rosin..... | 1,464,581 | 146,458 | 1,551,592 | 155,159 |
| Silk goods ..... | 1,379 | 140,934 | 10 | 1,078 |
| Fined oils ..... | 58,881 | 117,762 | 21,532 | 43,064 |
| Tea..... ..... | 19,269 | 115,614 | 418 | 2,508 |
| Salt meat ..... | 161,275 | 112,892 | 5,785 | 4,050 |
| Wheat flour ..... | 319,555 | 111,844 | 22,059 | 7,721 |
| Gum copal ..... | 45,021 | 108,050 | 43,009 | 103,221 |
| Cabinet woods.....value | ..... | 102,028 | ..... | ..... |
| Hops.....kilog. | 81,080 | 101,288 | 61,121 | 76,401 |
| Woollen goods ..... | 3,737 | 86,584 | 41 | 791 |
| Vegetable filaments..... | 84,693 | 84,693 | 87,678 | 87,678 |
| Volatile oils or essences ..... | 3,070 | 82,100 | 1,316 | 39,660 |
| Pimento..... | 57,773 | 80,882 | 22,488 | 31,483 |
| Ornamental feathers ..... | 4,352 | 74,069 | 2,979 | 50,643 |
| Broom grass..... | 69,831 | 69,831 | 69,831 | 69,831 |
| Pure copper ..... | 32,270 | 64,540 | 43,880 | 87,660 |
| Other articles..... | ..... | 854,603 | ..... | 660,348 |
| Total..... | ..... | 172,054,886 | ..... | 140,691,295 |

EXPORTS FROM FRANCE TO MEXICO.

| | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Silk goods .....kilog. | 31,731 | f.3,724,802 | 22,004 | f.2,578,002 |
| Cotton goods..... | 91,567 | 2,358,534 | 70,380 | 1,651,249 |
| Woollen goods..... | 47,498 | 1,011,708 | 46,679 | 996,013 |
| Paper, books and engravings.. | 272,125 | 887,801 | 271,975 | 886,997 |
| Haberdashery and buttons.... | 83,042 | 660,448 | 79,310 | 625,536 |
| Crockery, glass & crystal..val. | ..... | 552,554 | ..... | 506,659 |
| Wines .....litres | 309,210 | 346,063 | 304,595 | 343,859 |
| Utensils & machinery...kilog. | 76,511 | 341,436 | 68,040 | 316,826 |
| Flax and hemp goods..... | 11,849 | 260,285 | 7,800 | 189,133 |
| Perfumery ..... .... | 29,923 | 195,461 | 27,923 | 195,461 |
| Prepared and dressed skins.... | 16,931 | 169,531 | 16,931 | 169,531 |
| General utensils.....value | ..... | 122,280 | ..... | 133,000 |
| Brandies and liquors....litres | 65,345 | 109,278 | 61,394 | 103,979 |
| Parisian manufactures...kilog. | 10,552 | 106,280 | 10,552 | 106,280 |
| Other articles..... | ..... | 1,834,822 | ..... | 1,370,334 |
| Total..... | ..... | 12,701,823 | ..... | 10,172,859 |

IMPORTS FROM MEXICO INTO FRANCE.

| | GENERAL COMMERCE. Quantity. | Value. | SPECIAL COMMERCE. Quantity. | Value. |
|---|---|---|---|---|
| Cochineal.....kilog. | 124,444 | f.3,733,320 | 85,732 | f.2,571,971 |
| Dye-woods ..... | 10,259,676 | 2,051,935 | 7,199,944 | 1,439,989 |
| Vanilla ..... | 5,821 | 1,462,750 | 2,388 | 597,000 |
| Raw hides..... | 125,733 | 202,311 | 129,842 | 206,346 |
| Jalap-root..... | 45,705 | 146,250 | 6,435 | 20,592 |
| Sarsaparilla..... | 31,399 | 94,197 | 44,172 | 132,516 |
| Cotton-wool ..... | 19,240 | 84,632 | 203 | 366 |
| Pure copper ..... | 5,100 | 10,200 | 9,975 | 19,950 |
| Other articles .....value | ..... | 53,302 | ..... | 41,587 |
| Total..... | ..... | 7,788,903 | ..... | 5,030,317 |

EXPORTS FROM FRANCE TO TEXAS.

| | GENERAL COMMERCE. Quantity. | GENERAL COMMERCE. Value. | SPECIAL COMMERCE. Quantity. | SPECIAL COMMERCE. Value. |
|---|---|---|---|---|
| Wines.....litres | 49,837 | f.82,874 | 49,837 | f.82,874 |
| Brandies and liquors..... | 11,048 | 10,296 | 11,048 | 10,296 |
| General utensils.....value | ..... | 7,560 | ..... | 7,560 |
| Glassware .....kilog. | 19,736 | 5,993 | 19,736 | 5,993 |
| Skins, dressed & prepared.... | 286 | 4,232 | 286 | 4,232 |
| Various French manufactures. | 258 | 1,940 | 258 | 1,940 |
| Other articles .....value | ..... | 1,886 | ..... | 1,779 |
| Total..... | ..... | 114,781 | ..... | 114,674 |

IMPORTS FROM TEXAS INTO FRANCE.

| | GENERAL COMMERCE. Quantity. | GENERAL COMMERCE. Value. | SPECIAL COMMERCE. Quantity. | SPECIAL COMMERCE. Value. |
|---|---|---|---|---|
| Cotton-wool.....kilog. | 58,338 | f.105,008 | 21,200 | f.38,160 |
| Oak staves.....No. | 3,021 | 1,057 | 3,021 | 1,057 |
| Raw tallow.....kilog. | 215 | 118 | 215 | 118 |
| Other articles .....value | ..... | 50 | ..... | 50 |
| Total..... | ..... | 106,233 | ..... | 39,385 |

## Art. II.—COST OF PRODUCTION AND FOREIGN DEMAND FOR OUR BREADSTUFFS.

AMONG the many interesting subjects which are at this time exciting the attention of the commercial and agricultural classes, there is none more deeply interesting than that upon which we propose to say a few words—the probability of a permanent foreign demand for, and cost of producing our breadstuffs. There seems to be, at the present time, a strong tendency among commercial nations, towards abandoning their old systems of restrictions and protections, and substituting instead a more free and equal system of commercial legislation; and certain it is, that if this, the doctrine of free trade, advances with the same giant strides for the next ten years, that it has for the last five, we may expect to see it, ere long, firmly established on the ruins of its "illustrious predecessor." If we understand this doctrine rightly, the fundamental principle of it—the foundation-stone upon which it is all built—is, that, in the universal competition among nations, produced by free trade, that nation which, by means of its greater natural advantages, cheaper labor, more abundant capital, or greater skill, industry, or energy, can produce a given article cheaper than others, will command the market of the world for that article. In view, therefore, of this result, it behooves us to look around and ascertain, if we can, what peculiar advantages we possess for producing certain articles, and what those articles are. It is evident that in the production of cotton, for instance, no nation could compete with us, and we should have then, as we do now, almost the entire monopoly of the article; so, also, in some articles of manufactures, and the fisheries. It is very doubtful, for instance, whether any nation could compete with us in foreign markets, for the supply of the coarser cotton fabrics; and it is certain that, though the English and French can "fit out" their whale-ships as cheaply, we could, by superior skill and management, drive them completely from the ocean. With regard to many other articles, however, there is a great diversity of opinion, and especially so with regard to our ability to supply foreign nations with breadstuffs. One great reason of the difference of opinion on

this subject seems to arise from the different views which seem to obtain as regards the "cost of production." It is utterly useless to talk about what we can supply, or what is likely to be the demand from abroad, until we have settled this point; as it is very evident that, however great may be the wants of other nations, or however great may be our ability to supply them, we cannot do so, unless we can afford to sell our produce cheaper than others. As with individuals, so with nations,—he who can purchase the cheapest, can sell the cheapest, and command the market. This, then, the "cost of producing" our breadstuffs, must be the basis of all sound reasoning upon the subject; upon this hang all the "profits," if not the law. Adam Smith tells us that all articles, whether manufactured or crude, which cost the labor of man to produce, and in the production of which there is a free competition, have what he calls a natural price; that is, a price barely above the cost of production. Around this natural price, or cost of production, prices gravitate,—sometimes above, sometimes below it. It is obvious that prices cannot long remain above this "natural" point; for if, from any cause, they do, it becomes a profitable business to produce it,—competition comes to the rescue, more is produced than is needed, the supply outruns the demand, and down come prices. So, also, if it fall below this natural point, it ceases to be profitable to produce it; people will not make to sell at a loss,—the supply ceases to be equal to the demand, and prices advance. Now the great staples of our breadstuffs have this natural price, as well as all other articles. There is in them, to be sure, peculiar and powerful disturbing causes, which (especially wheat and flour) cause them to fluctuate above and below this natural price, far more than other articles; but they have it, nevertheless. But what is this natural price? "that is the question." We can obtain an answer to it by applying to practical men. We ask two intelligent farmers in Illinois what they can produce Indian corn for; one says 15, the other 25 cents per bushel. The farmer in Michigan says he can produce wheat for 50 cents; the farmer in Western New York says he must have 70 cents. Not long since, it was proven, by "incontrovertible facts and figures," before a most respectable body in the city of New York, the American Institute, that wheat could be raised on the western lake shores, for 15 cents per bushel. Now, how are all these conflicting statements to be reconciled? We think the riddle can be solved. It is evident, in the first place, that the absolute cost of raising, added to the expense of transportation, is the "cost of production" of the article delivered in New York. But in what section of the country is this first expense of raising, merely, to be estimated? In New York, Ohio, or Wisconsin? It costs twice as much to produce it in the former as in the two latter States, and they raise perhaps forty times as much. Shall the States which raise the large quantities, or those which produce comparatively little, fix the value of the whole? In this connection it may not be uninstructive to take a glance at the history of the wheat and flour trade for the last thirty years.

Up to the time of the opening of the Erie Canal, in 1825, the principal wheat-growing regions were Eastern New York and Pennsylvania. The quantity of good wheat land was limited, and during the latter part of this period, the demand began to outrun all the supplies which could be produced from this limited region; the prices rose, the farms became more valuable, and the farmers were getting rich. Prices were considerably

higher at this time, than they have been since. The opening of the Erie Canal, however, soon changed the aspect of things; it was found that the expense of producing wheat on the then cheap and productive lands of Western New York, was so much less than in the valley of the Mohawk, as to enable them to pay the additional expense of transportation, and still make it a more profitable business than their eastern neighbors. The result was as might have been expected. Western New York increased with amazing rapidity; the prices of wheat and flour began to fall, and the old Knickerbockers of the Mohawk had to abandon, to a certain extent, the business of wheat-growing. This part of the country for a while held the reigns and governed prices, and a large city was built up by the mere business of milling. As the population became more dense, farms rose in value, and the land required more and better tillage to produce the customary crops; this of course raised the cost of producing them.

Ohio had in the meantime come into the field, and with as good and cheaper lands, took possession of the market. Several of the largest and best agricultural counties in New York, have been losing population for several years past, and their yearly product of wheat has, since 1840, remained stationary. Ohio now, in her turn, begins to feel the effect of competition; her population begins to emigrate "West;" and we are told in a letter, published in a recent report of the Commissioner of Patents, "that the wheat crop of Ohio has been decreasing for a number of years past, especially in the amount of its acreable product." Michigan, the northern parts of Indiana, Illinois, and Wisconsin, now govern the price and fix the cost of production. It remains to be seen whether some future States of Dacotah, Nebraska, or Minnesota, beyond the Mississippi, will, in their turn, rule, and compel the population of these last-named States to emigrate to their own cheaper lands. We think not; the next step will be across land, and not across water. The cost of transportation will be relatively much increased; probably more than sufficient to counterbalance any advantages they may possess by reason of cheaper lands.

It seems, therefore, that the experience of the last twenty years teaches us, that the saving made in the cost of production, on cheap and good lands, more than counterbalances any additional cost of transportation. One striking fact in relation to this matter, will be observed in looking over the prices of flour in New York for the last thirty years. We find that for ten years previous to the opening of the Erie Canal, they were from one to two dollars higher than they have been since. From 1825 to 1836, the average price was about $5 17 per bbl.; from 1836 to 1839, the great inflation of the currency caused prices to advance, and they averaged $8 32; from 1839 to January 1846, prices averaged $4 95; during the whole of this time, with the exception of the three years from 1836 to 1839, which we do not consider a fair criterion of anything, prices were very uniform, never going much above or much below the average rate of $5 06 per bbl. As wheat always bears the same relative price as flour, in New York, it could not have varied much at any given point, from the same average rate for twenty years, excepting the three named. The conclusion, therefore, is, that the eastern wheat-growers have been driven from its cultivation, not because the price has fallen, but because their own lands have risen in value, increasing the cost of raising it. The cheap lands of the interior seem to have acted as a kind of regulator, keeping prices on the seaboard down to the lowest point of production.

We come now to a consideration of the question, what is the lowest point at which wheat can be raised in the West, under the most favorable circumstances? In considering this subject, it must be borne in mind that by far the greatest portion of wheat-growers in the West are so situated that they cannot find a market, but for the single crop of wheat. The expense of carting an article of so little value, compared with its weight, as corn, prevents this grain from being a crop of any value. A farmer, therefore, who lives fifty miles from the banks of a navigable river, or port, is completely shut out from a market. It is not fair, therefore, to take as a test the case of a farmer, who lives on the immediate banks of a navigable river, and is so happily situated that he can sell both crops at his door; neither are these peculiar localities sufficiently numerous to affect the general result. It is still less fair to take the case of an individual who can *hire* his labor done. We have seen numerous estimates of this kind, and there is about them a certain degree of plausibility calculated to mislead those not practically acquainted with the subject, and involving, moreover, the practical application of an important principle of political economy.

"I have," says some one in the West, "a piece of prairie land, which cost me, cleared and ready for a crop, $3 50 per acre; the interest is so much; and I can hire all the necessary labor for so much more. In all, it costs me $6 per acre, and I get from it 20 bushels of wheat, costing 30 cents per bushel." Admitting the truth of this estimate for the sake of the argument, it must be obvious that it is made by one who is not a farmer, but looks to some other means for his support, forgetting that what may be true as applicable to an individual, may be very far from true as applicable to a class.

Such a person, a professional man, for instance, living in the middle of a large agricultural community, may be able to *hire labor, to a limited extent*, to put in and take care of his crops; but he is not a farmer, and whilst his crops are growing, has to derive his support from the practice of his profession. Now, who supports him? The farmers, certainly; and does not this expense enter into the cost of raising wheat just as much as ploughing? But the farmer's case is very different; he has nothing to look to whilst his crops are growing, and though he may in the meantime derive his principal support from his farm, in other crops, has to look to his wheat to pay for all those necessaries he cannot produce. The cotton-planter might, with the same propriety, not estimate the cost of keeping his negroes, whilst his crops are growing, as the farmer not estimate the cost of keeping the mechanics, merchants, millers, lawyers, &c., among them.

We would not be understood as recognizing the absurd distinction sometimes made between what are called the producing and non-producing classes. On the contrary, their services are obviously just as much needed, to produce and market a crop of wheat, as those of the farmer, or the farmer's horse, and enter just as much into its cost. The true test, therefore, of the cost of production, is to take, not the case of an individual, but that of a large class, exclusively devoted to the pursuit of wheat-growing, in one of the most remote sections of the country.

We will take a single county in Michigan, with which the writer is familiar, (St. Joseph,) on the St. Joseph River, in the interior, and from which the cost of transportation to the seaboard is as great as from any

part of the West. The price of wheat here is governed of course by the price of flour in New York, and its true average value has been 50 cents per bushel, equivalent to $5 per bbl., for flour, in New York. It has been occasionally considerably higher, but the result has shown that the purchaser, in such cases, has lost what the seller has gained. Whenever the price fell below this, the farmer would hold on as long as he could, sell reluctantly, and complain that it did not pay him the cost of producing it.

At 50 cents, it was a fair living business for him; and we are confident, that, should prices fall permanently below this, the production of wheat in that section of country would be very much diminished.

But to try it by another test. According to the returns of the State Marshal, this county produced, in 1845, with a population of 10,000, 470,000 bushels wheat; in 1839, according to the United States census, it produced, with a population of 7,000, 131,450 bushels. The crop of 1845, was enormously large for so small a population; double, probably, the average of crops in any other wheat-growing section of the country. If we take the average of these two years as a fair test of the average product of the county, we shall have, with a population of 10,000, 320,890 bushels, yearly. This is the only crop raised in the county for export, and its surplus has to pay for all the articles imported, and which it is impossible to make among themselves. Deduct from 320,890 bushels, one-tenth for seed, and four bushels for the consumption of each inhabitant, and we have a surplus of 256,000 bushels, worth, at 50 cents, $128,000, leaving $12 80 to each person, to pay for iron, part of their agricultural implements, leather, groceries, clothing, and a thousand articles of indispensable necessity, which they cannot make themselves. We submit to common sense, whether this is not about the lowest point of production.

The relative value of wheat in New York, as compared with flour, at $5, is $1 02 per bushel; this was its average price, in that city, for the seven years ending December, 1845; and 52 cents, the difference between that and the Michigan price, is about the actual cost of its transportation. We have come, therefore, to the conclusion that 50 cents, in the interior, and $1 02 per bushel for wheat, and $5 per bbl. for flour, in New York, are the "natural prices," the actual cost of production, above which they could not permanently remain, without stimulating production, and below which they could not fall, for any length of time, without decreasing it.

To suppose that these are not the "natural prices," would involve the absurdity of believing that the wheat-growers have been, for the last twenty years, selling their products for less than they cost; or, on the other hand, have been getting rich at the expense of other classes, both of which positions we *know* to be false. The agricultural wheat-growing interest has been, it is true, steadily prosperous, but not more so than any other interest.

In the production of that other great article of our breadstuffs, Indian corn, the whole matter is widely different; and the rule we have laid down as governing the price of wheat on the seaboard, will not hold true as regards this grain. Although the soil of every part of the Mississippi valley is admirably adapted to its growth, the additional cost of transportation, on a grain of so little value, compared with its weight, has *not* counterbalanced the decreased cost of production on their far cheaper and more productive lands; we find, accordingly, but a trifling quantity coming to

our eastern market. According to the census returns of 1840, the entire corn crop of the country, in 1839, was 494,618,000 bushels; of which 320,617,000 bushels were raised in the valley of the Mississippi. The custom-house returns from New Orleans, and the canal returns from Buffalo and Oswego, the three great outlets of this valley, give as the annual shipment from all these places united, for the six years ending 1845, only 853,000 bushels; showing how small a quantity reaches a market in its crude state. Virginia, Maryland, and the States adjacent, have heretofore been able to keep out their western competitors, and monopolize the markets.

In this great valley, almost every product finds its peculiar home. The soil and climate about the lakes seem best adapted to the growth of wheat, and we find, accordingly, that about four-fifths of all the wheat and flour which reaches tide-water, from the country west of the Alleghanies, comes by the northern route, via the New York Canals. Corn, on the other hand, is better adapted to the rich river bottoms of the numerous streams which empty into the Ohio and Mississippi; and in its more portable shape of beef, pork, lard, whiskey, &c., finds its natural outlet at New Orleans.

There does not seem to be the same discrepancy of opinion about the cost of producing this grain as of wheat. Whilst the latter is at best but a precarious crop, requiring a great deal of care in its cultivation, and yielding on an average, but about fifteen bushels to the acre, the other is a safe, certain crop, and can be raised with as little trouble, in favorable localities, as is required in New England to produce a crop of hay, and will yield from fifty to one hundred and twenty-five bushels to the acre, depending altogether on the care taken in its cultivation. It is, in fact, the hay of some parts of the West, and an Illinois farmer can produce a ton of shelled corn for about one-half what it would cost a Massachusetts farmer to raise a ton of hay.

Another great advantage it has over wheat, is in the harvesting; it can remain, if necessary, all winter in the fields, without injury, and be harvested at otherwise leisure moments. Wheat, on the contrary, *must* be harvested at a particular juncture, when time is valuable, and the farmer has to hire help to do it. Our personal experience is, that there are but few parts of the West where a farmer would not prefer raising corn, at 10 or 15 cents, at his door, to wheat at 50 cts. The great difficulty about it is the expense of transportation. During the five years ending December, 1845, a period during which all kinds of agricultural produce was exceedingly low, the average price of corn at New Orleans was 40 cents, and in New York, 56 cents, per bushel; and this, notwithstanding it can be profitably raised, in many portions of the West, at 10 cents per bushel. It is certainly a fair inference to suppose that, with immense quantities constantly seeking a market, it should have been kept down to as low a point as it could be afforded at; and we take, accordingly, 40 cents at New Orleans, and 56 cents at New York, as the "natural prices," the lowest rates at which any considerable quantity could be afforded for export.

We would here advert to one peculiarity in the laws which govern our supplies of breadstuffs from the interior, and which is always acting with great force to keep prices at a fixed rate. It is, that the cost of transportation being always the same, any change in prices comes with double force on the same article in the interior; thus, a rise of 20 per cent on flour in New York, when it is worth $5, increases the value of wheat in

Michigan, nearly 50 per cent. On the other hand, a fall of 20 per cent, decreases its value 50 per cent. It is the action of this law which we believe ever prevents flour going, *permanently*, much above five dollars. A permanent decline to $4 per barrel, in New York, would inevitably stop the growing of wheat, for export, in three or four of the largest wheat-growing States of the Union. A permanent rise to $6, would stimulate its production to an extent that would outrun any demand we can conceive.

On the subject of foreign demand for our breadstuffs, much has been said and written; and it is exceedingly to be regretted that a subject so important should be so often made the foot-ball of party strife, rather than of calm discussion. That the time has come, when Great Britain must, whether from necessity or policy, it matters not, open her ports to the admission of breadstuffs, does not, we think, admit of a doubt. But other nations can produce them as well as ourselves; the question then is, who can sell the cheapest? At Dantzic, the great grain mart of Northern Europe, and from whence Great Britain has heretofore drawn a large portion of her supplies, the average price of wheat has been, according to McCulloch, and other good authorities, for twenty years past, about one dollar per bushel. We take Dantzic as the fairest criterion of European prices; for, though it is often quoted lower, at other ports, the difference is more apparent than real, the wheat being of an inferior quality. The Dantzic wheat is considered as good as the English, and Dantzic is considered by the English as their cheapest market on the continent.

We have seen that, with the exception of the four years of *insanity*, from 1836 to 1839, the average value of wheat in New York has been, as compared with flour, $1 02 per bushel, for the last twenty years. We can, therefore, afford it about as low as they can; and the only advantage they would have over us would be in freight, the fair average of which, according to McCulloch and the returns of the British consuls, is 11 cents per bushel. From New York to Liverpool, a fair rate of freight, in ordinary times, is about 18 cents per bushel. They could undersell us, therefore, about 9 cents per bushel. This advantage would be obviated, to some extent, by our wheat being in the more portable shape of flour, and our more intimate commercial connections with Great Britain. We ought to possess great advantages over them by reason of our ports being open during the winter, whilst the ports of the Baltic and Black Seas are closed. We can derive little benefit from it, however, as our inland navigation is closed at the same time, preventing us from getting forward our supplies, when most needed. This great and growing evil to the trade of the West, will, we hope, ere long, be remedied by the completion of the Baltimore and Ohio Railroad, which, pushing onward, as it ultimately must, to St. Louis, will keep the market open, during the whole year, to Chicago and Michigan, and prevent their being longer mere tributaries to the State of New York. It is true, we have not, heretofore, furnished Great Britain with more than one-twentieth part of her foreign supplies of grain, but this was owing, in a great degree, to the operation of the "sliding scale," which seemed to have been framed for the express purpose of giving the nations of Northern Europe an advantage over us.

It would seem, therefore, that if Great Britain should permanently repeal her corn laws, we could furnish her with a portion at least of her supplies, *at low rates*. We must not flatter ourselves, however, that this would result in a permanent rise in the value of wheat and flour. An ad-

vance of a half a dollar, above its average rate of five dollars, would, we feel confident, stimulate its production beyond any demand, however great, likely to exist. There could not, in fact, be a rise; for as soon as that took place, we should have to abandon the market to our foreign competitors.

It has been assumed, in every discussion we have seen upon this subject, that our inability to contend with Northern Europe, in this matter, arises from their cheap pauper and serf labor, and consequent lower cost of production. We think, however, that this is a mistake, and believe that facts will bear us out in the assertion that in no part of the world is the first cost of production so low as in our own western country; it is in the *cost of transportation*, they possess such vast advantages over us. Let us trace a bushel of wheat from the interior of the West to Liverpool. It is first drawn to the banks of a river or canal; from thence shipped to a lake port, thence to Buffalo, thence to Albany, shipped again to New York, and then to Liverpool. It pays four warehouse and shipping charges, and five distinct freights. A farmer in Poland takes his wheat to the Vistula, it is floated in arks to Dantzic, thence direct to Liverpool. It pays one warehouse and shipping charge, and two freights. Liverpool stands in the same relation to the farmer in Poland, as Buffalo to the farmer in Michigan, and it costs the latter just as much to deliver his at Buffalo, as it does the former to deliver his at Dantzic.

According to Mr. McCulloch, the expense of "arking" a bushel of wheat from the most remote provinces on the Vistula, 700 miles from Dantzic, is about 25 cents per bushel; from the provinces lower down, about 10 cents, and from those within 70 miles, but 2 cents per bushel. "It is conveyed," says he, "in barges, (built like our arks,) which are several weeks in making the voyage; the wheat is left exposed to the inclemencies of the weather, and the rain falling upon it causes it to grow, forming a thick mat which prevents the rain from penetrating more than an inch or two, and presenting the appearance of a floating meadow. On its arrival, the barges are broken up and sold for two-thirds their original cost, the men returning on foot. The wheat, all but the grown part, is thrown on shore, exposed to the sun, frequently turned over, till any slight moisture it may have imbibed, is dissipated. Should it rain, in the meantime, the wheat is thrown up into heaps, and covered with a linen cloth. It is frequently a long time after the wheat arrives at Dantzic before it is fit to be placed in the warehouse." If we deduct the highest freight on the Vistula, from the average price of wheat at Dantzic, it leaves the grower 75 cents per bushel. We have seen that $1 02 in New York netts the farmer in Michigan 50 cents, showing pretty conclusively, that it is not in its first cost that they possess any natural advantages over us.

In regard to the probable future foreign demand for Indian corn, all we can say must be mere speculation. It is not to be supposed that the present remarkable state of things in Europe, which has raised its price to that of wheat, can remain permanent; nor is it to be taken as the slightest criterion of the future. It is yet a matter of doubt whether the people of Great Britain will continue to consume it when not compelled to do so by necessity.

It seems to have been generally admitted that in case Great Britain should require a regular supply of this grain, we should be able to under-

sell all competitors. This, however, admits of doubt; for other nations cultivate it extensively, and we are told by high authority, "that it has the widest geographical range of any of the cerealia; growing luxuriantly at the equator, and as far as the fiftieth degree of north, and the fortieth degree of south latitude; it is grown extensively in all the southern parts of Europe and Asia." Mr. McGregor, an eminent English statistician, and Secretary of the British Board of Trade, says that "there was shipped from Galatz and Ibruila, two ports at the mouth of the Danube, during the four years from 1837 to 1840, inclusive, 5,537,896 bushels of Indian corn, at 24 cents per bushel, free on board."

There is nothing improbable about this, as it is a fair inference that if we can raise corn for one-third what we can wheat, other nations can do the same; and it is probable that 24 cents, at the mouth of the Danube, will nett the producer, on its banks, as much as 40 cents, at New Orleans, will the producer in Illinois. Freights are, however, (owing to the shallowness of the harbors,) very high; according to Mr. McCulloch, 25 per cent higher than from Odessa, and equivalent to 45 cents per bushel to Liverpool. Here, for once, we have the advantage in transportation. A fair freight fron New Orleans to Liverpool would be about 30 cents.

It is well known that corn can be carried from the vicinity of St. Louis in arks and steamboats, in a good stage of water, for 12½ cents per bushel; and as it can be raised to any extent for 10 or 15 cents per bushel, there would seem to be a discrepancy between this statement and the one we have made heretofore, that corn could not be sold in New Orleans, on board vessels, for less than 40 cents. There is, in fact, none. The principal part of the corn which finds its way to New Orleans, goes from the Wabash, Upper Illinois, and other places, from which the expense of "arking," owing to their inability to load heavily, is very much increased. It costs about as much to "run an ark" from the Wabash to New Orleans, with say 2,000 bushels corn, as it does from St. Louis, with double the quantity; and of course the freight per bushel is doubled. The New Orleans corn is put into sacks, (gunny-bags,) which cost from five to six cents per bushel. The warehouse charges, commissions, &c., are very heavy; it shrinks about 4 per cent in shipping to an eastern port, and the risk of its injuring is equal to about 10 per cent more.

The domestic corn trade of the country, though small as compared with the trade in flour and wheat, is instructive, as showing from which quarter a permanent foreign demand would be likely to be supplied. The great bulk of the corn crop is consumed where it is raised; the only portion of the country which seems not to have raised sufficient for their own consumption is New England, and their demand has been confined in a great measure to the wants of their large manufacturing and seaport cities and towns.

The average price of corn for the five years ending 1845, has been, as we have seen, at New Orleans, about 40 cents; in New York and Boston, 50 to 56 cents; in Baltimore, about 50. The last named place has been the cheapest market for New England, and we find, accordingly, that she has drawn most of her supplies from that and other ports in the Chesapeake. By a statement in Hunt's Merchants' Magazine, it appears that Boston imported, during the year 1841, 2,045,000 bushels of Indian corn; 36,700 of which was from New Orleans, the balance from the Chesapeake and Delaware.

Heretofore, the trade of New York in this grain, has been very small; not being able to draw any from west of Buffalo, and getting most of the supplies necessary for her own consumption, from her immediate vicinity. It is not probable, in case we should have a permanent foreign demand for this grain, that the Black Sea would be a very formidable competitor, especially as our ports, from whence this supply would come, would be open whilst theirs were closed. It is very evident that the rates quoted are the lowest at which any considerable quantity could be supplied, and that those States would supply this demand whose natural advantages are such as would enable them to ship almost immediately from their fields, without having it eaten up by inland transportation. These States are, the eastern part of Pennsylvania, Delaware, Maryland, Virginia, and North Carolina, and they would possess great and decided advantages over all others. Their corn would be worth at least five cents per bushel more than that via New Orleans, and freights to Europe, from their ports, would be at least ten cents per bushel cheaper than from New Orleans. The West would not be likely to derive any benefit whatever from a foreign demand for corn, except in extraordinary cases like the present. A purchaser for a foreign market had better pay 50 cents for corn in Baltimore, than to take it as a gift in Illinois, This is not mere theory; large quantities of corn were sold in Boston, during the summer of 1846, from the valley of the Mississippi, which did not pay freight and expenses, and the shipper fell in debt to the consignee.

It is a matter of great doubt whether a grain, the transportation of which is so great, compared with its original cost, can ever become an article of extensive commerce. No considerable quantities of it could be laid down in Liverpool for less than 80 or 90 cents. According to McCulloch, the average price of grain in Great Britain, for the six years ending 1838, was as follows:—Wheat, $1 54 per bushel; rye, $1; barley, 91 cents; oats, 65 cents; peas, $1 14; beans, $1 10; these were years of full average crops. Our corn would therefore have to compete with the cheaper grains at these prices, and the importation of them from the continent. The average price of wheat in Great Britain, for 80 years, from 1760 to 1839, was 59s. 8d. per quarter, $1 79 per bushel.*

Indian corn has, however, a peculiar India-rubber-like character, which admirably suits it for a sudden and unexpected demand. Raised in the Western States, in large quantities, for distillation and the use of animals, of no moneyed value, except in a few localities, it is poured out in the most extravagant profusion. We have seen that 56 cents per bushel, in New York, commands none from the valley of the Mississippi; raise it, however, to 80, and it begins to move; raise it to a dollar, with a fair prospect of its keeping at that for any length of time, paying the producer 40 cents

* In reducing foreign quotations to our own currency, an error very frequently made by those not practically acquainted with the subject, is in estimating the pound sterling (or sovereign) at its old valuation, $4.44.4. By an act of Congress, passed 1834, this was changed to $4.87, though, owing to light weight, not current with us for more than $4.84. They are led into this error by our absurd method of conducting foreign exchanges, in estimating the pound at $4.44.4, and adding a per centage which is called premium of exchange, when it is, in fact, not so. Thus, when exchange on London is quoted at 9.7 premium, it is in fact just at par, and is above or below par, as it varies from this standard. Thus, the average price of wheat at Dantzic, for the thirteen years ending 1842, was 33s. 8d. per quarter, or $1 02½ per bushel, not 92 cents, as we have sometimes seen it estimated.

for that he before considered almost valueless, and an article, of which the ordinary consumption is so easily curtailed, will come forward in immense quantities. At that price, three or four bushels will, in some parts of the West, pay for an acre of wild land; and to save it, the farmer instantly ceases to give it to his stock in any considerable quantities, uses less himself, and the demand for distillation is very much decreased.

There is one form, however, in which corn may be shipped abroad to any extent, and in the exportation of which, no nation can compete with us—that is, in its more portable shape of beef, pork, lard, &c.; not being in this, its more concentrated form, so entirely destroyed by its own transportation. It is yet a matter of doubt, whether the large prairies of the West can be successfully devoted to the cultivation of wheat. The winds, in the winter, sweeping over them with irresistible fury, leave them alternately covered with snow and exposed; the earth freezes and thaws, by turns; the roots of the wheat get broken, and are apt to be "winter-killed." They are, however, admirably adapted to grazing, the expense of wintering is very slight, the cattle will fatten themselves on grass, and beef can be afforded astonishingly low. The writer of this has seen fat cattle sold, in the streets of Chicago, for $5 a head. Pork, also, can be made very cheap; and such is the abundance and cheapness of corn, that the farmers in many parts do not consider it worth harvesting, but turn their swinish multitude into the corn fields to gather the crop and fatten themselves. It is, we believe, in this shape, that any foreign demand for Indian corn will be most likely ultimately to resolve itself.

That Great Britain will require henceforth a large annual importation of grain, will not, we presume, be denied by any. We annex the following tables of grain and flour imported into Great Britain for the last seven years, drawn from official Parliamentary documents:—

| Years. | Grain, quars. | Flour, cwts. | Equivalent, bushs. | Years. | Grain, quars. | Flour, cwts. | Equivalent, bushs. |
|---|---|---|---|---|---|---|---|
| 1840.. | 3,448,399 | 1,317,814 | 30,881,727 | 1844.. | 2,532,619 | 712,968 | 22,043,372 |
| 1841.. | 2,955,616 | 1,214,220 | 26,670,478 | 1845.. | 1,105,342 | 582,527 | 10,299,053 |
| 1842.. | 2,172,349 | 1,125,801 | 20,193,294 | 1846.. | 4,130,240 | 3,377,186 | 41,484,885 |
| 1843.. | 1,237,871 | 426,877 | 10,970,160 | | | | |

The estimates of equivalents in bushels are, of course, our own, allowing 2¼ bushels of wheat to every cwt. of flour, and 8 bushels to a quarter. We have not at hand any means of ascertaining what proportion of this grain was wheat. From 1841 to 1843, however, the annual imports of Great Britain in wheat, alone, averaged about 15,328,000 bushels. The Commissary's Report of the Board of Public Works for Ireland, states the deficiency of the potato crop of 1846 to be 8,142,599 tons, which they estimate will take 1,438,344 tons Indian corn to supply, valued at £13,424,357 sterling. This is equal, at 40 bushels to a ton, to 57,333,760 bushels. It is not, however, to be supposed for a moment, that a country so exclusively agricultural as Ireland will remain uncultivated, and become permanently a corn-importing country. Such a thing would be, for very obvious reasons, utterly impossible. She has, however, heretofore, supplied a very large proportion of the grain required for England. According to a statement in Hunt's Merchants' Magazine, Vol. VII., p. 173, it appears that the exports of grain from Ireland to England averaged, for the five years ending December, 1841, 345,715 quarters of wheat, and 2,440,541 quarters of other grains, or 22,290,048 bushels of all sorts of

grain per year. The failure of the potato will very much diminish, if not entirely destroy, her ability hereafter to furnish a surplus. It is estimated that an acre of potatoes will support two or three times as many people as an acre of grain, and she will probably require hereafter all she can raise to feed her own population.

It will be useless to make any estimates, from these facts, as to the probable wants of Great Britain hereafter, as they will be governed so entirely by causes we cannot now foresee; enough, however, may be gathered from them, to warrant us in assuming that they must be very large. Mr. Hudson, member of Congress from Massachusetts, estimated, in February, 1846, that the probable imports of wheat into Great Britain, for a series of years to come, would average about 15,000,000 bushels. This was before the failure of the potato was known to be so fatal as it has since proven. We must bear in mind that the potato has failed in England, as well as Ireland; and, if we double or treble his estimate of the quantity they will need, in wheat and Indian corn, we shall not probably be far out of the way. Now, where is she to get this large supply? Heretofore, she has imported about $\frac{1}{20}$ of her supplies of wheat from the United States, $\frac{9}{20}$ from the Baltic, (Russia, Prussia, and Denmark,) $\frac{3}{20}$ from Germany, $\frac{2}{20}$ from France, $\frac{2}{20}$ from Italy, $\frac{2}{20}$ from the North American colonies, and $\frac{1}{20}$ from various other countries. Several years since, the English government, in the prosecution of inquiries relative to the repeal of the corn laws, directed her consuls in all the great grain marts of Europe to report how much grain their respective countries could furnish, and whether it was capable of increase. The substance of their reports, presented in a report to Parliament, in 1841, was that they could all jointly furnish about 17,780,000 bushels of wheat, 7,298,000 bushels of rye, 6,820,000 bushels of barley, and 6,445,700 bushels of oats; that there were large bodies of land suitable to the cultivation of grain, in the North of Europe, in the interior, which, under the stimulus of a permanent large demand, would be brought under cultivation, and the supplies increased. These facilities, in the shape of railroads, projected and in process of completion, are fast being furnished; but (and it is an all-important fact to us) *they terminate on the Baltic, a sea frozen up in the winter.* We gather, from these facts, that the quantity the continent could furnish *is limited;* and if we take into consideration that the failure of the potato on the continent as an article of diet, will diminish her capacity to furnish supplies, we may safely assume that continental Europe is at present incapable of furnishing what Great Britain must, for a series of years, inevitably require, and the question instantly arises, can we do it? And if so, can we compete with the continent when prices are at their lowest point of production?

We believe that, notwithstanding all that has been said about the "cheap serf labor of Europe," we can. There is a great fallacy, we think, about this cheap labor cry. We have shown already, that the *first cost* of raising grain with us is very much less than in the cheapest parts of Europe. The serfs employed in the cultivation of grain, in Europe, are a part and parcel of the estates where they belong, and are prevented by fundamental laws from leaving them. They have to be supported the year round on the proceeds of a single crop. They cannot, like the pauper labor of Great Britain, be turned off to go to the work-house when their labor is no longer profitable. Their situation is almost precisely

analogous to that of negroes on a Southern plantation, dressed in sheepskins, and winnowing their wheat by throwing it up in the air with shovels. Their whole method of cultivation is extravagant, wasteful, and slovenly in the extreme. We know that in this country slave labor is the dearest of all labor; and that, whenever and wherever it comes in competition with free labor, it has to yield the field. Virginia, Maryland, Kentucky, cannot compete with Pennsylvania, Ohio, or Indiana, is raising wheat. In Virginia, it has almost passed into a proverb, that "it takes all the corn the negroes raise to fatten the pork, and all the pork to feed the negroes." No, we will not think so meanly of our countrymen, as to suppose that the productive powers of one freeman are not more than equal to that of half a dozen slaves, be they black or white.

McCulloch says, "Dantzic is the port whence we have always been accustomed to draw the largest supplies of our corn (wheat;) and it would seem fully established, by the data collected by Mr. Jacob, in his tours, that 28s. or 30s. per quater, is the lowest price for which any considerable quantity of wheat for exportation can be permanently raised in the corn-growing provinces in the vicinity of Warsaw." This is from 84 to 90 cents per bushel—nearly double what it can be raised for in most parts of the West. He says, moreover, "The greater cheapness of imports from other places (on the continent) is apparent only, and is uniformly countervailed by a corresponding inferiority of quality." There is a great deal of truth and a great deal of poetry in what Mr. Secretary Walker says, in his famous report: "We have more fertile land than any other nation; can raise a greater variety of products; and, it may be said, could feed and clothe the people of nearly all the world. The home market, itself, is wholly inadequate for such products. They must have a foreign market, or a large surplus, accompanied by great depression in price, must be the result. The States of Ohio, Indiana, and Illinois, if cultivated to their fullest extent, could, of themselves, raise more than sufficient to supply the entire home market." Now the idea, that we *must necessarily* have a large surplus and consequent depression of prices, because we have the *power* of producing it, is as absurd as to suppose that a manufacturer would make goods when he *knew* that he could not sell them except at a loss. In a country like ours, with the means of subsistence constantly pressing upon population, prices of breadstuffs must necessarily be kept (on an average of years) down to their lowest cost of production; but to suppose they can go lower, for any length of time, is to suppose our agricultural population devoid of common sense; and whilst it may be true, that the States named have the power attributed to them, of what value is it to us if we cannot avail ourselves of it, and other nations still be able to undersell us? The same might be said of the country about Timbuctoo, or the interior of New Holland. The great difficulty under which we labor, and which, unless remedied, must ever prevent us from becoming permanently a large corn-exporting country, is the immense cost of our inland transportation, and our inability to get forward our supplies when most needed during the winter months. The average of freights from Chicago to Buffalo, is about the same as a fair freight from New York to Liverpool; and it costs from two to three times as much to transport a barrel of flour from the great grain-growing regions of the West to New York, as it does from thence to Liverpool. This is the difficulty—far more formidable to the wheat-growers of the West, than any system

of free trade, or high tariffs—the serf labor of Europe, or the ocean between us. The crops, coming in as they do the latter part of summer, leave but a short time to get much forward before the close of navigation. The mill-streams at this season are apt to be low, preventing the mills from doing full work; and the farmers, busy in getting in a new crop, cannot, if they would, thresh and market it. The consequences are, that the great bulk has to come forward the succeeding summer. It arrives all at once, and the markets are glutted. It is apt to sour at this season, and holders, afraid to hold it, force it into market, and great and ruinous temporary depressions are the consequence. Should we hear of crops abroad having failed, and our prices advance in consequence, early in the fall, everything is pressed forward beyond the capacity of the canals to transport, freights rise enormously, and the farmer and miller, who has been obliged to sacrifice his flour the preceding summer, is deprived of the benefit of the advance which legitimately belongs to him. The foreign demand, which might have taken it off during the winter had it been in market, may, and generally does, cease in the summer, because their own crops are about coming in, and the Baltic and Black Seas, opening at the same time that our inland navigation does, pour in their supplies. We have had a striking example of this within the last year. Flour, last August, $4 per barrel—now, $8; sales constantly making to arrive, at $5 50 to $6 50; the seaboard completely bare of breadstuffs, whilst the interior is overflowing with them; and a large fleet of vessels waiting in New York for the canals to open. Such a state of thing is lamentable in the extreme. But is there no remedy for it? The Erie Canal is evidently (even when it is open for half the year) inadequate to do the business required of it; and even if it was, the enormous cost of transportation upon it, consequent upon the narrow and selfish policy of the State of New York, in refusing to enlarge it, and the shameful exposures made before their legislature during the last winter, make it imperative upon the people of the West not to be longer at the complete mercy of this concern, kept for the mere purpose, it would seem, of fattening successive hordes of public plunderers.

Mr. Childs, editor of the Philadelphia Price Current and Commercial List, says: "If we make a natural line of the Mississippi to the confluence of the Ohio, and up this river to Pittsburg, and thence draw an imaginary line North to Lake Erie, and continue it round the Northern and Eastern frontiers of the United States, it will be found that, at this time, the wheat raised in all this section of the United States is about equal to what is consumed in it." This was said in 1842, and was undoubtedly true at that time; but as the production of wheat in the Northwest has very much increased since that time, the probability is, that the Eastern section does *not* at present produce enough for its own consumption. It is from this region, then—the States North and West of the Ohio, containing the largest quantity of fertile land in one body, adapted to grain-growing, in the world—that the supplies must come to fill a foreign demand. If our views and estimates are correct, it will be seen, that the natural prices of wheat in our country and in Europe are so nearly equal, that neither possesses any very decided advantages over the other. It is evident, therefore, that in years of abundance the successful competitor for the markets of Great Britain must possess some more decided advantage than does either at present. This, *we* should have, could we obtain that great desi-

deratum—cheap facilities for getting our wheat and flour to market during the winter months. We should then possess, what no other grain-growing nation in the world possesses, free communication the whole year round between that part of the country which furnishes, and the country which needs our supplies. Ohio, the young giant of the West, has a system of internal improvements, which are, indeed, so literally "internal," that they remind one very much of those of Robinson Crusoe, or of a man, who, owning a farm some distance from a public thoroughfare, should set up a "system of internal improvements" by running roads through it in every direction, but neglect to open a road to the great highway to let him out. Her "internal" improvements, opening on one side into a lake unnavigable half the year, and on the other, into a river—once spitefully described by John Randolph, as being "frozen up all winter, and dried up all summer,"—furnish but miserable poor facilities for getting her supplies to market. Every man, practically acquainted with the business of the West, knows how strong a tendency the whole supplies of this country have to seek a Northern rather than a Southern route to market, and in spite of much heavier transportation. During the winter months, produce can be sent with perfect safety via New Orleans; but at this time the Ohio, and all the small streams and canals which empty into it, are frozen up. During the summer, it is impossible to send any kind of produce via New Orleans, without almost a certainty of its being injured by the climate. Notwithstanding these objections, however, immense quantities do find their way there in the spring and fall months, but more from necessity than from choice. The quotations in the prices current—"Ohio flour, via New Orleans," 50 cents per barrel cheaper than "Ohio, via canal," tell the story in a manner not to be misunderstood.

On casting our eyes over a map of the United States, we are struck with the peculiar configuration of the country, between the Ohio River and the Atlantic, through Virginia and Maryland, The Chesapeake jutting into the continent at this part of the coast, brings tide-water much nearer the Alleghany ridge than at any other place; and from thence, to the fertile regions of the West, it is comparatively near. The sagacious eye of Washington early saw the advantages of this route, and the subsequent efforts on behalf of the Cumberland road shows it has not been forgotten. The traveller passing over this road, observes, by its side, near Wheeling, a statue, which he is told, was erected by the inhabitants living on the road, to the honor of its earliest advocate and defender, Henry Clay—a memento more honorable than a panel in the rotunda of the capitol—but the day of M'Adamized roads and canals has passed, and that greatest of modern improvements, railroads, has taken their place. Such a road, is what is needed between the seaboard and the West. The Baltimore and Ohio Railroad, is slowly pushing on to the Ohio; but to stop here, would be like stopping the Erie Canal at Lockport; to make it of any great value, it should be continued on as far at least as the Erie and Wabash Canal. Such a road would be of incalculable value, not only to the country through which it passed, but to the whole United States: to the manufacturing and mercantile interests of the North and East, by opening a constant channel with their best customers, and cheapening the price of breadstuffs; to the commercial interests, by affording a steady supply of freights; to the cotton-growing States, by lessening the cost of manufactured goods, whether made at home or abroad, and increasing the consumption of cotton; and to those States in the Northwest, not imme-

diately benefited by the road, (Michigan, Wisconsin, and Illinois,) by allowing their surplus to come forward, in regular succession, after the heavy supplies from other sections had reached the seaboard. Neither would such a road be impracticable. None, who have observed the astonishing progress and success of railroads within the last ten years, can doubt that such a line will, ere long, be completed. The common notion, that transportation is necessarily expensive on railroads, is, we believe, grossly erroneous. The Western Railroad from Boston to Albany, a distance of 200 miles, transports flour between those two places, in the summer, for 30 cents per barrel; and such are the advantages of railroads, that it is cheaper for the shipper to pay that rate than 22 cents per barrel per vessel, between the same places. It is, moreover, in proportion to the distance carried, but about one-half as high as the average of freights on the Erie Canal, for the last two years. Suppose the Baltimore and Ohio Road extended to a point on the Erie and Wabash Canal, say at Terre Haute. The distance to this place, by the mail routes from Washington, is 700 miles; and a shipper there would have the privilege of sending either by way of New Orleans, Buffalo, or to Baltimore. We are not familiar with freights on the Erie and Wabash Canal, but presume a barrel of flour could not be delivered in New York, via Erie Canal, for less than $1 50, or by way of New Orleans, for less than $1 30. If we take the cost of transportation on the Western Road, as a standard, and double it, the expense of delivering a barrel of flour in Baltimore, would be, taking all things into consideration, less than by either of the other routes. If such are, therefore, the advantages of such a road to the most distant point, what must be the advantages of it to all the intermediate places between Wheeling and Terre Haute, especially when we consider that the freights on the Ohio Canals to New York, are very little less than from the Erie and Wabash?

It is a matter of astonishment that the West has not, ere this, woke up to the importance of that road. It seems to have been totally lost sight of, whilst numerous meetings have been called for the purpose of helping forward a railroad to Oregon, to open, we presume, a trade with the "800,000,000 of people" Mr. Walker speaks of, and induce them, if possible, to use Indian corn instead of rice; and run an opposition with the South Sea islanders, for the supply of the Chinese markets with sausages and homony, instead of bech-la-mar and edible birds' nests. A railroad, running through the States of Ohio and Indiana, and terminating at Baltimore, would add 25 to 50 per cent to the value of every farm within fifty miles of it, and make the latter place, what nature intended it should be, the great corn mart of the continent—the Dantzic of North America. It is capable of demonstration, that the people of Ohio and Indiana lose every year, for the want of a winter market for their produce, enough to build fifty or seventy miles of such a road. They are throwing away all the natural advantages they possess, and putting themselves, voluntarily, on the same footing with the inhabitants of Wisconsin and Iowa, 500 miles further off. With such a road, we should hear no more of the people of Ohio emigrating, and her wheat crop diminishing.

Attempts have sometimes been made to connect the subject of foreign demand for our breadstuffs with those of tariffs, free trade, and protection. Any one, however, who will compare the prices of breadstuffs for the last twenty years with the different changes in our tariffs, will find that the fluctuations in prices have had no more to do with them than they have

with the rise and fall of the Nile. Mr. Walker says: "For the manufacturer, the markets of the world, containing a population of 800,000,000, are sacrificed—disabled from purchasing our products, by our high duties on all they would sell in exchange." Now this *sounds* well, and would have some force if it could be proven that the free admission of foreign goods would cheapen the cost of producing breadstuffs, the greatest part of the value of which consists of transportation, and the labor of those who consume but a very small quantity of foreign goods whether they be high or low. The nations who want breadstuffs, will buy them where they can get them the cheapest, whether they have to pay for them in goods or specie. If Great Britain can buy her breadstuffs cheaper in the Baltic than of us, she will do so, and send her manufactures here to get the specie to pay for them. No one believes that any system of commercial policy that we may adopt, will create a demand for a single bushel more or less of our grain in Great Britain, or, if it did, that we should be able to supply it, unless we can undersell all competitors. It is a matter of prices, far more than of tariffs. The question of free trade, or protection, between different parts of our own country, is of far more importance than between us and other nations. The cost of transportation is, to the people of the West, a tariff of the most formidable kind.

Mr. Walker, in his defence of free trade, says: "The farmer and planter have a home market without a tariff." This may be true of the planter; but what kind of free trade is that, to the farmer, which admits the goods of other nations free, but levies an export duty of 100 per cent on every bushel of wheat he exports, to pay for them? This home tariff is, however, fast working out its legitimate results. Already, we see manufacturing cities, twice as large as Lowell, springing up as if by magic in the West, and nothing but the want of capital prevents their still more rapid extension. If it is important to the manufacturers of Great Britain, to break down our tariff to admit their goods, it is as equally important to the manufacturers of the Eastern and Middle States, to break down this tremendous tariff of high transportation, which is building up their rivals in the West with a rapidity of which they have no conception. The agricultural and manufacturing interests of the West may, ere long, be able to say to the East—"This is protection enough for us, and we will not, for the sake of protecting you, submit to be taxed on the few articles we cannot produce." With the South and West against them, wo be to the manufacturers of the Eastern and Middle States, if they cannot, without protection, compete with their rivals in Europe. The farmers of the West, however, should remember, that they are at present protected by a 20 per cent "ad valorem" duty on wheat and flour, and that, if they would have the privilege of "buying where they can buy the cheapest," they must allow the people on the seaboard the same right; and that a failure of crops in our country, half as extensive as that which now afflicts Western Europe, would make it an object to do that which was done in 1837—import breadstuffs from Europe.

Our foreign demand for breadstuffs, has heretofore been very insignificant, but not, therefore, unimportant. No principle is better understood among business men, than that a deficiency in the supplies of an article enhances the value of the whole, far more than the value of the deficiency; and that, on the other hand, a small surplus decreases the value of the whole very much more than the value of that surplus. It was on this principle, that the Dutch East India Company once made a bonfire of a

large quantity of spices, to increase the value of the balance of their stock; and the foreign demand for our breadstuffs has, heretofore, by taking off a small surplus when prices reached a low mark, had a very beneficial effect upon our home markets.

A paragraph in the English newspapers, received by recent arrivals, shows, in a very strong light, the importance of a winter communication with the interior. Speaking of the loan of £2,000,000 sterlings, recently made by the Emperor of Russia to the Bank of France, it says: "Russia does not want French manufactures in exchange for its cereals, but the sale of its agricultural produce is a matter of vital importance, and its granaries are known to be full of grain. The policy of Nicholas evidently is, that this surplus should find a market *before the American surplus reach Europe*, and under any circumstances, that it should not remain unsold. Hence he has, most wisely, given France the means of trading with his own subjects."

This subject has, heretofore, been made a matter of mere vague generalities and "ex parte" statements, and has not attracted the attention which its importance demands. Involving, as it does, the question, whether we may or may not (without indulging with any extravagant expectations about "feeding the world") add permanently to the value of our other exportable products, $15,000,000 or $20,000,000 worth of breadstuffs, it is a matter of vital importance to the whole country. Our humble efforts have been directed by an earnest desire after the truth; our individual interests are stronger than our pride of opinion; and if we are the means, either of making an old truth better understood, or of eliciting sounder views or more logical conclusions from other, we shall rest satisfied with the conviction that our efforts have not been entirely unavailing, and that we have at least "done the State some service."

## Art. III.—THE IRON TRADE OF EUROPE AND THE UNITED STATES:

### WITH SPECIAL REFERENCE TO THE IRON TRADE OF PENNSYLVANIA.*

In considering the advantage which Pennsylvania is to derive from her beds of iron ore, it would be pleasant, did our limits permit, to dwell on the wonderful application of this metal to the purposes of human life. Still more interesting would it be, to notice the rapidity with which the uses of iron multiply, in all parts of the civilized world, as human ingenuity extends its range, and increases the number of its devices. This increase in the use of iron, we suspect, is far beyond the conceptions of those who have not been led to pay particular attention to the subject. Among the important new applications, we may specify the iron vessels,—the trial of which has been highly satisfactory—the iron roofs, iron fronts, iron buildings, and fire-proof constructions in building, which are adopted to a wonderful extent in some portions of England, and will be very rapidly brought into use in this country; and the iron bridges, railings, vehicles, engines, and utensils, which are everywhere taking the place of the wooden predecessors. Under this head, we may, indeed, place that greatest of all applications of iron—the railway—because railroads are a comparative novelty in our country.

* Entered according to Act of Congress, in 1847, by C. G. Childs, in the Clerk's Office of the District Court of the Eastern District of Pennsylvania.

In 1765, there were shipped by sea from Philadelphia, 822 tons of bar iron, price £26 per ton; and 813 tons of pig iron, price £7 10s. Compare this statement with that given by Mr. Ellet, President of the Schuylkill Navigation Company, in his late April Report, of the 4th inst.: "That the mere increase of the production of this metal, in the Valley of the Schuylkill, alone, during the last eighteen months, exceeds the entire production of all the furnaces of Great Britain, ninety years ago!"

In tracing the history of Pennsylvania iron works, the earliest official information which we find, is contained in "A Statement of the Arts and Manufactures of the United States, prepared in execution of an instruction of Albert Gallatin, Esq., Secretary of the Treasury, given by him in obedience to a Resolution of Congress, of the 19th of March, 1812." This document abounds in just and striking views of the true elements of national prosperity—views, worthy of the able financier who was Secretary of the Treasurer under that enlightened and illustrious President, James Madison. This work was prepared by Tench Coxe, Esq.

From this work, we learn the number of furnaces in Pennsylvania, in 1810, and the amount of their yearly products, as well as their location.

| | Furnaces. Blast. | Air. | Product, tons. | Value. |
|---|---|---|---|---|
| Philadelphia County | .. | 2 | 820 | $71,060 |
| Northampton | 1 | . | 300 | 10,500 |
| Chester | 2 | . | 1,050 | 42,000 |
| Lancaster | 4 | . | 4,200 | 135,400 |
| Dauphin | 1 | . | 2,790 | 139,500 |
| Berks | 10 | . | 4,142 | 165,760 |
| Mifflin | 1 | . | 112 | 3,660 |
| Cumberland | 1 | . | 2,900 | 125,000 |
| Franklin | 2 | . | 1,381½ | 45,785 |
| Huntingdon | 4 | . | 4,212 | 112,318 |
| Fayette | 11 | . | 3,130 | 178,120 |
| Westmoreland | 3 | . | 701 | 78,200 |
| Beaver | 1 | . | 390 | 36,900 |
| Butler | 1 | . | 350 | 17,500 |
| Alleghany | 2 | 4 | 400 | 40,000 |
| Total | 44 | 6 | 26,878½ | $1,201,343 |

In order to show the number of furnaces in the United States, the quantity of pig iron manufactured by the same, in 1810, we have made up the following table from the work above referred to:—

NUMBER OF FURNACES AND YEARLY PRODUCT, IN 1810.

| | Furnaces. Blast. | Air. | Total. | Products, tons. | Value. |
|---|---|---|---|---|---|
| Maine | .. | 2 | 2 | .... | Uncertain |
| Massachusetts | .. | .. | .. | 2,340½ | $154,700 |
| Vermont | 8 | 2 | 10 | 1,246 | 122,000 |
| Rhode Island | .. | 9 | 9 | 17 | 3,970 |
| Connecticut | .. | 8 | 8 | .... | 46,180 |
| New York | 11 | 10 | 21 | 3,359 | 362,020 |
| New Jersey | .. | .. | 12 | 5,859 | 361,952 |
| Pennsylvania | 44 | 6 | 50 | 26,878½ | 1,301,343 |
| Maryland | 9 | 1 | 10 | 5,000 | 249,653 |
| Virginia | 16 | 2 | 18 | 6,930½ | 171,312 |
| Ohio | .. | .. | 3 | 1,187 | 109,090 |
| Kentucky | .. | .. | .. | 4 | 1,000 |
| Tennessee | .. | .. | 6 | 587 | 98,077 |
| Total | 88 | 32 | 154 | 53,908½ | $2,981,277 |

The character of Philadelphia, as a manufacturing city, had even then attracted attention. The document above mentioned, makes the following statement, which, taken in connection with its date, is well worthy of special notice: "The manufactures of the city of Philadelphia, (within the strict charter limits of less than two square miles,) containing, on about 1,100 acres of land, 53,722 persons, amount to $9,347,767." So early and before our anthracite coal was known, and when our iron trade was in in its infancy, did Philadelphia assume the position (which she is destined yet to hold in most conspicuous and undeniable pre-eminence) of the great manufacturing city of the Union.

By a most remarkable arrangement of Providence, Pennsylvania, in which such wonderful deposits of coal are found, is also bountifully supplied with iron ore. It is said that there are very few, if any counties, which do not possess some of the ores of this metal; but the proximity of beds of iron ore to the great coal fields, and the abundance of limestone in the same districts, are circumstances of great importance, and indicate clearly the great leading occupation of Pennsylvania. Already, one half of the iron produced in the Union, is produced in this State. The discovery, six years since, of the method of using anthracite coal, in the reduction of iron ore, was, of course, the event which completed the full exhibition of our mineral wealth.

In order to show the vast expenditures of the State, in furnishing facilities for bringing the iron of our mountains, as well as the coal, to the seaboard, and also the trade of the West to Philadelphia, we copy the following official statement from a valuable document, exhibiting the financial affairs of Pennsylvania, by J. W. Hammond, late chief clerk of the Auditor-General's office:—

RAILROADS.

| | Length, miles. | Cost. |
|---|---|---|
| Columbia Railway. | 82 | $4,204,969 96 |
| Alleghany Portage Railway ..... | 36 | 1,828,461 85 |
| Total ..... | 118 | $6,033,431 81 |

CANALS.

| | Length, miles. | Cost. |
|---|---|---|
| Eastern Division.. | 43 | $1,736,599 42 |
| Juniata " .. | 130 | 3,521,412 21 |
| Western " .. | 105 | 3,069,877 38 |
| Delaware " .. | 60 | 1,381,741 96 |
| Susqu'han'h " .. | 39 | 896,379 52 |
| North Br'ch " .. | 73 | 1,580,670 87 |
| West Br'ch " .. | 72 | 1,808,472 10 |
| French C'k " .. | 45 | 795,891 74 |
| Beaver " .. | 25 | 511,671 19 |
| Total ..... | 592 | $15,302,526 39 |

UNFINISHED IMPROVEMENTS.

| | Cost. |
|---|---|
| North Br'ch Extension.. | $2,184,939 60 |
| West Branch " .. | 352,456 79 |
| Erie " .. | 3,160,566 76 |
| Wisconisco Feeder ..... | 390,013 23 |
| Alleghany " ..... | 31,171 56 |
| Gettysburgh Railroad... | 667,917 61 |
| Total ..... | $7,087,065 60 |

RECAPITULATION.

| | Length, miles. | Cost. |
|---|---|---|
| Railro'ds finish'd.. | 118 | $6,033,431 81 |
| Canals " .. | 592 | 15,302,626 39 |
| Canals unfinished.. | unc. | 7,087,065 60 |
| Locomotives and engines.....cost | ... | 473,919 97 |
| Explorat'y surveys | ... | 111,375 83 |
| Appraisers and Canal Board..... | ... | 81,875 88 |
| Total cost.... | | $29,090,294 98 |

After surveying the vast expenditure by the State of Pennsylvania, for the development of her own resources, let us call attention, by way of contrast, to the astonishing fact, that the sum of all the appropriations made by the United States government, for the construction and repair of roads, fortifications, and harbors, and for the improvement of rivers, from 1806

to 1845, is only $17,199,223! And then, when we come to add the cost of the improvements constructed in our State by private enterprise, and find the whole amounting up to $80,000,000, or more, how nobly does Pennsylvania appear in comparison with even the federal government itself!

Great Britain is the country to which we must look for historical information in regard to the manufacture of iron. The iron trade of Great Britain may be taken as, in some measure, a prospective representation of our own. For this reason, accurate information respecting the progress and present extent of that trade, is of great value in this country; and we are happy to be able to lay before our readers information of such a character, which we have prepared from late important Parliamentary documents, and other authentic sources.

The earliest iron works in Britain, were in the forest of Dean, where, says a quaint historian, "abundance of wood is yearly spent." In the reign of Elizabeth, the effect of the iron works in producing a scarcity of timber for ship-building was felt; and in 1581, an act was passed, requiring that, inasmuch as "the necessary provision of wood doth daily decay and become scant," no new iron work should be erected within twenty-two miles of London, nor within fourteen miles of the River Thames; and a subsequent act ordered, that "no timber of the size of one foot at the stub, should be used as fuel at any iron work." In the reigns of James I. and Charles I., attempts were made to smelt iron with pit coal, but without success; and the iron works in many parts were stopped entirely, and in others diminished their operations.

About 1560, Edward Lord Dudley discovered a process for the use of pit coal, and obtained a patent. He erected a furnace, and succeeded in making seven tons of iron per week; but the mob destroyed his works, and defeated his plans, and it was a century before his process came into general use.

A historian writing in the reign of Charles II., says: "Very many measures of ironstone ore are placed together under the great ten yards' thickness of coal, and upon another thickness of coal, two yards thick, not yet mentioned, called the bottom coal, or heathern coal, as if God had decreed the time when and how smiths should be supplied, and this island, also, with iron; and most especially, that this coal and ironstone should give the first and last occasion for the invention of making iron with pit coal." The same writer states, that in the twelfth year of James I., there were in England, Scotland, Ireland, and Wales, 800 furnaces, forges, or iron mills, making iron with charcoal. Of these, he reckons 300 to have been blast furnaces, each making 15 tons of pig iron per week, and some 20 tons, working 40 weeks in the year; the forges make from 3 to 6 tons of bar iron per week.

For want of a supply of fuel, the quantity of iron manufactured in Great Britain steadily decreased, although the demand increased. Recourse was therefore had to foreign countries. From 1710 to 1718, the quantity imported from foreign countries, annually, (being chiefly from Sweden and Spain,) averaged about 17,000 tons, and the duty upon it about £35,000. As late as 1769, there were imported from Russia alone, 34,000 tons.

The following table shows the number of furnaces, and the make, in each county, in the year 1740:—

| Counties. | Furnaces. | Tons. | Counties. | Furnaces. | Tons. |
|---|---|---|---|---|---|
| Brecon | 2 | 600 | Sussex | 10 | 1,400 |
| Glamorganshire | 2 | 400 | Yorkshire | 6 | 1,400 |
| Carmarthenshire | 1 | 100 | Nottinghamshire | 1 | 200 |
| Denbighshire | 2 | 550 | Derbyshire | 4 | 800 |
| Monmouthshire | 2 | 900 | Warwickshire | 2 | 700 |
| Cheshire | 3 | 1,700 | Worcestershire | 2 | 700 |
| Hereford-hire | 3 | 1,350 | Salop | 6 | 2,100 |
| Gloucestershire | 6 | 2,350 | And Staffordshire only. | 2 | 1,900 |
| Hampshire | 1 | 200 | | | |
| Kent | 4 | 400 | Total | 59 | 17,350 |

It appears, therefore, that the 300 furnaces before mentioned, had now dwindled to 59, making 17,350 tons annually, or not quite 300 tons to each furnace.

In 1760, Mr. John Smeaton put in operation, at the Carron Iron Works, in Scotland, blowing cylinders; an invention which, by increasing the power of the blast, increased the product of the establishment using it.

In 1775, commenced a new period in the history of the iron manufacture. Mr. Watt's improved steam-engine then came into use, for pumping water from the mines, and for blowing furnaces. In 1783, Mr. Cort obtained two patents, one for the process called puddling, and the other for rolling machines. These advantages led to a rapid increase in the manufacture of iron.

In 1788, there were, in England, Wales, and Scotland, 26 charcoal furnaces, making 14,500 tons; 59 coke furnaces, making 53,800 tons; total furnaces, 85; total tons, 68,300.

In 1796, there were, in all, 121 furnaces, making 125,079 tons.

In 1806, an accurate return was made to Parliament, which showed the following result: 222 coke furnaces, making 250,406 tons; 11 charcoal furnaces, making 7,800 tons; total furnaces, 233; total tons, 258,206.

In 1823 and 1830, returns were made, which show a great increase as compared with 1806 :—

| | 1823. | | 1830. | |
|---|---|---|---|---|
| | Furnaces. | Tons. | Furnaces. | Tons. |
| Staffordshire | 84 | 133,590 | 128 | 212,564 |
| Shropshire | 38 | 57,923 | 48 | 73,418 |
| Rest of England | 43 | 43,728 | 49 | 52,252 |
| Wales, (exclusive of North Wales,) | 72 | 182,325 | 113 | 277,642 |
| Scotland | 22 | 24,500 | 27 | 37,500 |
| Total | 259 | 442,066 | 360 | 653,416 |

Let us now bring these statistics of progress into one table:—

| Years. | Furnaces. | Tons. | Years. | Furnaces. | Tons. |
|---|---|---|---|---|---|
| 1740 | 59 | 17,350 | 1823 | 259 | *442,066 |
| 1788 | 85 | 68,300 | 1830 | 360 | *653,416 |
| 1796 | 121 | 125,079 | 1839 | 378 | 1,347,790 |
| 1806 | 233 | 258,206 | 1841 | ... | 1,387,551 |

It is estimated that the annual manufacture of iron, in Great Britain, has now reached 2,000,000 tons. In Scotland, the manufacture was found to have trebled in six years, prior to 1845. At the beginning of June, 1846, there were in blast, in Scotland, 95 furnaces; out of blast, 35;

* Exclusive of North Wales, which, for 1823, is estimated at 10,000 tons; and, for 1830, at 25,000.

making a total of 130. The furnaces in blast, at that time, produced an average of 110 tons per week, each, or at the rate of 543,400 tons a year for all.

The quantity of iron imported into Great Britain, in 1839, was 24,360 tons, the most of which came from Sweden.

The British duties on foreign bar iron have been as follows:—

| | Per ton. £ | s. | d. | | Per ton. £ | s. | d. |
|---|---|---|---|---|---|---|---|
| 1782..... | 2 | 16 | 2 | 1809..... | 5 | 9 | 10 |
| 1797..... | 3 | 4 | 7 | 1813..... | 6 | 9 | 10 |
| 1802..... | 3 | 15 | 5 | 1819..... | 6 | 10 | 0 |
| 1805..... | 5 | 1 | 0 | If imported in British ships; | | | |
| 1806..... | 5 | 7 | 5½ | and if in foreign ships... | 7 | 18 | 6 |

In 1825, the duty on foreign bar iron was reduced to £1 10s.

It cannot be doubted that the high duties imposed for so long a period on foreign iron, had a great influence in promoting the iron manufacture in Great Britain. Exertion was called forth, and ingenuity was stimulated, until this department of business acquired a strength which enabled it to stand against the world. When this position had been attained, and the iron manufacture had risen, under the fostering care of the government, to a point at which it could defy all competition, the restrictive duties were materially reduced.

The hot blast, (one of the most important inventions in the history of the iron manufacture) was first suggested, in 1829, by Mr. Neilson, of Glasgow, who took out a patent. This discovery, being found of greater value in Scotland than in England, on account of some peculiarity of the Scotch coal, greatly increased the iron manufacture of that country. A Scotch manufacturer, in writing on the subject, pronounces the hot blast "one of the greatest discoveries in metallurgy of the present age."

In 1838, Mr. Crane, an iron-master in South Wales, made known to the British Association that he had succeeded in applying the hot blast to the anthracite coal with complete success! This step in the progress of discovery opened a new world in Pennsylvania. The news of it made known to us the great design of our vast anthracite coal deposits.

We are now, therefore, led, by a natural transition in this historical sketch, to give an account of the iron interest of Pennsylvania. In doing this, we shall, of course, give prominence to the anthracite iron manufacture, because, in this department, our State enjoys unrivalled, and almost exclusive advantages. We are so fortunate as to have obtained copious statistics, showing the wonderful progress and present extent of this branch of business in this State; and the exhibition which we shall be enabled to make, will convince our readers that, if it were not insufferably vain in any State of our sisterhood to assume the title of Empire, such priority would clearly belong to Pennsylvania.

We commence with a statement which we have prepared from the United States census of 1840. It is to be regretted that the statistics in that census are far from being of a satisfactory character, incompetent persons having been employed to obtain them. But as we have nothing more authentic for that date, we resort to the census, as affording information which may be considered as at least a basis for a general estimate;—

| Name of county. | CAST IRON. No. of furnac's. | CAST IRON. Tons produc'd. | BAR IRON. Bloom'ries, forges, rolling-m'ls. | BAR IRON. Tons produc'd. | FUEL. Tons consumed. | No. of men, including miners. | Capit'l invested. |
|---|---|---|---|---|---|---|---|
| Adams | 3 | 50 | .. | .... | 40 | 10 | $10,000 |
| Allegheny | 28 | 6,584 | 12 | 28,100 | 74,187 | 1,305 | 931,000 |
| Armstrong | 3 | 1,031 | .. | .... | 1,052 | 141 | 48,000 |
| Beaver | 4 | 260 | .. | .... | 201 | 28 | 30,000 |
| Bedford | 9 | 7,765 | 2 | 8,898 | 14,497 | 821 | 253,000 |
| Berks | 11 | 8,220 | 36 | 6,569 | 42,245 | 1,185 | 655,644 |
| Bradford | 2 | 45 | .. | .... | 20 | 8 | 1,800 |
| Butler | 3 | 625 | .. | .... | 1,175 | 25 | 16,500 |
| Centre | 7 | 7,500 | 9 | 10,110 | 20,400 | 603 | 98,000 |
| Chester | 3 | 1,619 | 10 | 2,031 | 8,677 | 245 | 198,000 |
| Clinton | 2 | 1,692 | 4 | 663 | 10,598 | 905 | 360,000 |
| Clearfield | 1 | .... | .. | ... | .... | ... | ..... |
| Columbia | 2 | 1,800 | .. | .... | 2,000 | 80 | 80,000 |
| Crawford | 2 | 100 | .. | .... | 125 | 10 | 7,500 |
| Cumberland | 6 | 2,880 | 5 | 2,150 | 10,600 | 400 | 110,000 |
| Dauphin | 3 | 3,000 | 3 | 466 | 5,537 | 224 | 120,000 |
| Delaware | 1 | 100 | .. | .... | 150 | 12 | 20,000 |
| Erie | 1 | 100 | .. | .... | 150 | 20 | 15,000 |
| Fayette | 9 | 1,800 | 3 | 703 | 4,050 | 292 | 70,000 |
| Franklin | 8 | 3,810 | 11 | 1,125 | 8,653 | 518 | 258,500 |
| Huntingdon | 20 | 13,855 | 27 | 14,093 | 39,367 | 1,357 | 780,100 |
| Indiana | 1 | 80 | 1 | 80 | 170 | 19 | 18,000 |
| Lancaster | 11 | 6,912 | 14 | 2,090 | 16,525 | 784 | 420,500 |
| Lebanon | 3 | 3,120 | 3 | 297 | 6,108 | 231 | 233,000 |
| Lehigh | 1 | 600 | 1 | 3,000 | 4,714 | 93 | 20,500 |
| Luzerne | 6 | 870 | 1 | 86 | 955 | 88 | 43,000 |
| Lycoming | 4 | 600 | 3 | 270 | 1,230 | 125 | 288,000 |
| Mercer | 4 | 59 | .. | .... | 126 | 11 | 4,712 |
| Mifflin | 4 | 1,904 | 2 | 600 | 3,365 | 207 | 144,500 |
| Montgomery | 4 | 1,150 | 5 | 640 | 17,200 | 284 | 100,000 |
| Northampton | 6 | 3,523 | 4 | 910 | 6,227 | 164 | 95,000 |
| Perry | 3 | 2,951 | 2 | 1,300 | 16,152 | 389 | 303,150 |
| Philadelphia | 3 | 287 | 1 | 1,752 | 4,650 | 25 | 314,050 |
| Schuylkill | 4 | 2,109 | 3 | 365 | 8,942 | 138 | 107,000 |
| Somerset | 1 | .... | 1 | 20 | 50 | 9 | 1,000 |
| Union | 2 | 355 | 1 | 150 | 427 | 39 | 22,000 |
| Venango | 16 | 6,546 | 1 | 208 | 10,120 | 462 | 232,000 |
| Warren | 3 | 30 | .. | .... | 18 | 7 | 3,660 |
| York | 4 | 5,113 | 4 | 1,118 | 15,200 | 308 | 78,655 |
| Total | 213 | 98,395 | 169 | 87,244 | 357,903 | 11,522 | $7,781,471 |

In connection with the account of the British iron trade, we give the following statement (which those who are familiar with this subject will regard as a very important one) of the prices of merchant bar iron, in Liverpool, for a period of forty-one consecutive years. We invite special attention to this table. It reveals some facts, which the advocates of free trade must acknowledge to be remarkable, and for which they may find it difficult to account. It appears that, as the duties advanced, prices of iron declined, and that this sequence was invariable. When the manufacture became extensive and independent, the duties were reduced; and prices materially advanced, until they are now nearly double what they were when the duties were at the highest point:—

AN ACCOUNT OF THE SELLING PRICE OF ENGLISH MERCHANT BAR IRON, IN LIVERPOOL, FROM 1806 TO 1846, BOTH INCLUSIVE, AS FURNISHED BY MESSRS. JEVONS, SONS & CO.

| Year. | Month. | Price per ton. £ | s. | d. |
|---|---|---|---|---|
| 1806— | May..... | 17 | 10 | 0 |
| | July..... | 17 | 0 | 0 |
| | Nov..... | 16 | 0 | 0 |
| 1807— | Feb..... | 17 | 0 | 0 |
| | March.... | 16 | 10 | 0 |
| | July .... | 16 | 0 | 0 |
| | Aug..... | 15 | 10 | 0 |
| | Sept..... | 15 | 0 | 0 |
| 1808— | Sept..... | 14 | 10 | 0 |
| 1809— | Jan..... | 15 | 10 | 0 |
| | Feb ..... | 16 | 0 | 0 |
| | March.... | 15 | 0 | 0 |
| | Sept..... | 14 | 10 | 0 |
| | Oct..... | 14 | 5 | 0 |
| 1810— | Jan..... | 14 | 10 | 0 |
| | June..... | 14 | 5 | 0 |
| | Sept..... | 14 | 0 | 0 |
| | Oct..... | 15 | 0 | 0 |
| 1811— | Aug..... | 14 | 10 | 0 |
| | Sept..... | 14 | 0 | 0 |
| 1812— | May .... | 13 | 13 | 0 |
| | June..... | 13 | 5 | 0 |
| | July..... | 13 | 10 | 0 |
| | Oct. 1st.. | 13 | 5 | 0 |
| | Oct. 22d.. | 12 | 15 | 0 |
| | Dec..... | 13 | 0 | 0 |
| 1813— | Feb..... | 12 | 10 | 0 |
| | April.... | 12 | 5 | 0 |
| | June..... | 12 | 0 | 0 |
| | Dec..... | 13 | 0 | 0 |
| 1814— | Feb..... | 13 | 10 | 0 |
| | March ... | 13 | 0 | 0 |
| | April.... | 13 | 10 | 0 |
| | May..... | 14 | 0 | 0 |
| | June..... | 13 | 15 | 0 |
| | Aug..... | 13 | 10 | 0 |
| | Nov..... | 13 | 5 | 0 |
| 1815— | Feb..... | 13 | 10 | 0 |
| | May..... | 13 | 0 | 0 |
| | June .... | 12 | 10 | 0 |
| | June 30th. | 12 | 0 | 0 |
| | July..... | 11 | 10 | 0 |
| | Aug .... | 11 | 0 | 0 |
| | Dec..... | 11 | 10 | 0 |
| 1816— | March.... | 11 | 0 | 0 |
| | April.... | 10 | 15 | 0 |
| | June..... | 10 | 10 | 0 |
| | July..... | 10 | 0 | 0 |
| | July..... | 9 | 15 | 0 |
| | Aug..... | 9 | 10 | 0 |
| | Oct..... | 9 | 0 | 0 |
| | Oct..... | 8 | 15 | 0 |
| 1817— | Feb..... | 8 | 10 | 0 |
| | March.... | 9 | 10 | 0 |
| | July..... | 10 | 10 | 0 |
| | Aug..... | 12 | 0 | 0 |
| | Oct..... | 13 | 0 | 0 |
| 1818— | Feb..... | 12 | 15 | 0 |
| | April.... | 11 | 15 | 0 |
| | May..... | 11 | 5 | 0 |
| 1818— | June..... | 10 | 15 | 0 |
| | Aug..... | 10 | 0 | 0 |
| | Sept..... | 11 | 10 | 0 |
| | Dec. .... | 12 | 10 | 0 |
| 1819— | May..... | 11 | 10 | 0 |
| | June..... | 11 | 0 | 0 |
| 1820— | March.... | 10 | 10 | 0 |
| | June..... | 9 | 10 | 0 |
| 1821— | Jan..... | 9 | 0 | 0 |
| | Feb ..... | 8 | 15 | 0 |
| | March ... | 9 | 10 | 0 |
| | June..... | 8 | 15 | 0 |
| | Aug..... | 8 | 10 | 0 |
| 1822— | Jan..... | 8 | 0 | 0 |
| | June..... | 8 | 10 | 0 |
| 1823— | July. ... | 8 | 0 | 0 |
| | Nov..... | 8 | 10 | 0 |
| 1824— | Jan.. ... | 8 | 15 | 0 |
| | July..... | 9 | 15 | 0 |
| | Sept..... | 10 | 0 | 0 |
| | Oct. 4th.. | 11 | 0 | 0 |
| | Oct. 18th. | 11 | 10 | 0 |
| | Oct 23d.. | 13 | 0 | 0 |
| | Nov. 24th. | 12 | 10 | 0 |
| | Dec..... | 13 | 0 | 0 |
| 1825— | Jan..... | 14 | 0 | 0 |
| | Feb..... | 15 | 0 | 0 |
| | March ... | 14 | 10 | 0 |
| | April.... | 14 | 0 | 0 |
| | Aug..... | 13 | 0 | 0 |
| | Aug..... | 12 | 10 | 0 |
| | Sept..... | 11 | 10 | 0 |
| 1826— | Jan. .... | 11 | 0 | 0 |
| | April.... | 10 | 10 | 0 |
| | May..... | 9 | 10 | 0 |
| | Oct. .... | 10 | 0 | 0 |
| 1827— | March.... | 9 | 10 | 0 |
| | April.... | 8 | 15 | 0 |
| | July..... | 9 | 10 | 0 |
| | Dec..... | 9 | 5 | 0 |
| 1828— | Jan..... | 9 | 0 | 0 |
| | March.... | 8 | 15 | 0 |
| | April.... | 8 | 10 | 0 |
| | April 25th | 8 | 5 | 0 |
| | May..... | 8 | 0 | 0 |
| | Oct..... | 8 | 5 | 0 |
| | Dec..... | 7 | 15 | 0 |
| 1829— | April.... | 7 | 10 | 0 |
| | June..... | 7 | 5 | 0 |
| | Aug..... | 7 | 0 | 0 |
| | Oct..... | 6 | 15 | 0 |
| | Dec..... | 6 | 12 | 6 |
| 1830— | March.... | 6 | 10 | 0 |
| | June..... | 6 | 15 | 0 |
| | Oct..... | 6 | 10 | 0 |
| | Nov..... | 6 | 5 | 0 |
| 1831— | May..... | 6 | 2 | 6 |
| | June..... | 6 | 0 | 0 |
| | Oct..... | 5 | 17 | 6 |
| | Dec..... | 6 | 5 | 0 |
| 1832— | May..... | 5 | 15 | 0 |
| | Aug..... | 5 | 10 | 0 |
| | Nov..... | 5 | 15 | 0 |
| | Dec..... | 6 | 5 | 0 |
| 1833— | Feb..... | 6 | 15 | 0 |
| | April.... | 7 | 0 | 0 |
| | Sept..... | 7 | 5 | 0 |
| | Oct..... | 7 | 15 | 0 |
| 1834— | April.... | 7 | 12 | 6 |
| | May..... | 7 | 0 | 0 |
| | Aug..... | 6 | 12 | 6 |
| | Sept..... | 6 | 10 | 0 |
| 1835— | Feb..... | 6 | 7 | 6 |
| | March ... | 6 | 10 | 0 |
| | June..... | 6 | 7 | 6 |
| | Aug. 1st.. | 6 | 5 | 0 |
| | Aug. 31st. | 6 | 10 | 0 |
| | Sept. 16th. | 7 | 0 | 0 |
| | Oct. 1st... | 7 | 10 | 0 |
| | Nov. 30th. | 8 | 0 | 0 |
| | Dec. 8th.. | 8 | 5 | 0 |
| 1836— | Jan..... | 10 | 10 | 0 |
| | April 26th | 11 | 10 | 0 |
| | July..... | 11 | 5 | 0 |
| | Oct..... | 11 | 0 | 0 |
| | Nov..... | 10 | 15 | 0 |
| | Dec..... | 10 | 10 | 0 |
| 1837— | Feb..... | 10 | 5 | 0 |
| | March ... | 9 | 15 | 0 |
| | May..... | 9 | 0 | 0 |
| | June..... | 8 | 10 | 0 |
| | July..... | 7 | 5 | 0 |
| | Aug. .... | 6 | 15 | 0 |
| | Aug. 15th. | 7 | 5 | 0 |
| | Aug. 19th. | 8 | 0 | 0 |
| | Aug. 31st. | 8 | 15 | 0 |
| | Sept..... | 9 | 10 | 0 |
| | Dec..... | 9 | 15 | 0 |
| 1838— | Jan..... | 9 | 10 | 0 |
| | Dec..... | 9 | 15 | 0 |
| 1839— | Jan. .... | 10 | 5 | 0 |
| | May..... | 10 | 0 | 0 |
| | June..... | 9 | 15 | 0 |
| | Sept..... | 9 | 10 | 0 |
| 1840— | Jan..... | 9 | 0 | 0 |
| | Dec..... | 8 | 0 | 0 |
| 1841— | April.... | 7 | 15 | 0 |
| 1842— | Jan..... | 6 | 10 | 0 |
| | Dec..... | 5 | 5 | 0 |
| 1843— | April.... | 5 | 0 | 0 |
| | June..... | 4 | 10 | 0 |
| 1844— | Jan..... | 5 | 0 | 0 |
| | April 18th | 5 | 10 | 0 |
| | May 1st.. | 6 | 6 | 0 |
| | Oct. 3d... | 5 | 10 | 0 |
| | Dec. 3d... | 5 | 15 | 0 |
| | Dec. 20th. | 6 | 0 | 0 |
| 1845— | Jan. 2d... | 6 | 10 | 0 |
| | Feb. 3d... | 7 | 10 | 0 |
| | March 3d. | 9 | 0 | 0 |

| Year. | Month. | Price per ton. £ s. d. |
|---|---|---|
| 1845— | March 28. | 10 0 0 |
| | May 3d... | 9 10 0 |
| | May 19th. | 9 0 0 |
| | June 3d.. | 8 10 0 |
| | Aug. 4th.. | 7 15 0 |
| | Sept. 3d.. | 8 0 0 |
| 1845— | Sept. 18th | 8 5 0 |
| | Sept 26th | 8 15 0 |
| | Nov. 4th.. | 9 0 0 |
| 1846— | Jan..... | 9 0 0 |
| | Feb..... | 9 5 0 |
| | April.... | 9 0 0 |
| 1846— | May..... | 8 15 0 |
| | June..... | 8 10 0 |
| | July..... | 8 15 0 |
| | Aug..... | 9 0 0 |
| | Oct..... | 9 2 0 |
| | Dec..... | 9 5 0 |

The following duties were imposed upon foreign iron, imported into Great Britain, in—

| | £ | s. | d. | | £ | s. | d. |
|---|---|---|---|---|---|---|---|
| 1803..... | 4 | 4 | 4½ | 1818 to 1818..... | 6 | 9 | 10 |
| 1804..... | 4 | 17 | 1 | 1819 to 1825..... | 6 | 10 | 0 |
| 1805..... | 5 | 1 | 0 | If imported in British ships; | | | |
| 1806 to 1808..... | 5 | 7 | 5½ | if in foreign ships..... | 7 | 18 | 6 |
| 1809 to 1812..... | 5 | 9 | 10 | | | | |

In 1825, Mr. Herries, Chancellor of the Exchequer, proposed a considerable reduction on the duties on forge iron. Mr. Huskisson, President of the Board of Trade, offered the resolutions for these alterations, which were carried, and the following duties fixed, on the 5th January, 1825:—

| | Old duty. £ | s. | d. | Present duty. £ | s. | d. |
|---|---|---|---|---|---|---|
| Iron—In bars or unwrought, per ton, the produce of any British possession, and imported from thence..... | 1 | 2 | 2 | 0 | 2 | 6 |
| In bars or unwro't, the produce of any other country, p. ton | 6 | 10 | 0 | 1 | 10 | 0 |

Before entering upon the Pennsylvania iron trade, we will give place to some miscellaneous information of an interesting, and, perhaps, curious description, respecting the iron trade of Russia, Sweden, Spain, &c., which must be new to most of our readers. The works of Scrivenor and other writers, from which we derive these notices, have been accessible to very few, even among our iron-masters; and we think that the information thus furnished, will be highly acceptable in a community so deeply interested in everything connected with iron and its manufacture.

In Russia, iron ores have been known from time immemorial, but we have no information respecting mining operations in early periods. In 1569, the English obtained, by treaty, the privilege of seeking for and smelting iron ore, on condition that they should teach the Russians the art of working this metal, and pay, on the exportation of every pound, one half-penny. Peter the Great, himself, wrought in the iron works, before he set out, in 1698, on his first journey into foreign countries. Remaining some time in Saxony, he not only made himself acquainted with the arts of mining, but requested the King of Poland to give him some workmen, and in the following year twelve were obtained, In 1719, Lieut. Col. Henning, by order of the Emperor, travelled through several countries of Europe to collect information respecting mines and foundries, and on his return, wire manufactories, forges for steel, &c., were set up.

All iron works, erected with the assistance of the crown, pay a tax of about six cents on each pood of raw iron, and those without that assistance, about four cents. The pood is 36 English pounds. For every forge, the owner pays the crown 200 rubles yearly, or about $184.

The number of people employed in some of the iron works, in Russia, is astonishing. At the crown mines of Barnaul 48,000 boors are employed. The iron works of the Stroganof family have about them, and on the district belonging to the family, 83,000 vassals of the male sex! Many of the private works, give rise to villages, which are, in size and population, like our cities. The Barnaul mines afford some ore which yields from 50 to 60 per cent of iron; but 25 per cent is more common.

The exports of iron from all the ports of Russia, except those of the Caspian, in 1793, were :—

| | Poods. | Value in rubles. |
|---|---|---|
| Bar iron | 2,593,757 | 4,258,888 |
| Sorted | 491,575 | 901,454 |

The ruble is 3s. 1d. sterling, and is divided into 100 copecs.

In 1828, there were, in the Russian dominions, 19 foundries, forges, and mines, belonging to the crown; and 148 establishments belonging to private families.

The exports of bar iron from St. Petersburg to America, were as follows, in the years specified :—

| | Poods. | | Poods. | | Poods. |
|---|---|---|---|---|---|
| 1783 | 6,615 | 1792 | 132 380 | 1797 | 112,260 |
| 1785 | 38,618 | 1794 | 256,635 | 1804 | 278,264 |

The exportation of iron from Russia, has been upon the decline since 1784.

In 1832, there were exported to the United States, 803,508 poods of bar iron; and in—

| | Bar, poods. | Sheet, poods. | | Bar, poods. | Sheet, poods. |
|---|---|---|---|---|---|
| 1833 | 504,750 | 64,234 | 1837 | 262,000 | 40,000 |
| 1834 | 345,080 | 13,186 | 1838 | 270,000 | 36,598 |

Sweden has long been celebrated for its iron. In 1740, there were 496 foundries for making bar iron and other iron manufactures, which produced 40,600 tons. In that year, the government established an office to promote the production of iron, by lending money on the ore, even at so low a rate as 4 per cent.

In 1838, there were, in Sweden, from 330 to 340 smelting furnaces, producing about 90,000 tons of pig iron. The smelting furnaces are licensed for a particular quantity. These licenses are granted by the College of Mines, which has a control over all the iron works and mining operations. The iron-masters make annual returns of their manufacture, which must not exceed their privilege, on pain of the overplus being confiscated.

The iron mine of Dannemora is the most celebrated in Sweden. It has been wrought for four centuries, and still yields abundance of the best iron in Europe. It was first wrought as a silver mine. The annual yield of this mine is about 4,000 tons, the whole of which is sent to the house of Messrs. Sykes, in Hull, England, where it is known by the name of the Oregrouud Iron, taking its name from the port at which it is shipped. The first, or best mark, is L., which sells at £40 per ton; while the best Russian mark, the C. C. N. D., is seldom higher than £20 per ton.

The cause of the superiority of the Dannemora iron has never been explained. Some chemists ascribe it to the presence of manganese. Berzelius attributed it to the presence of the metal of Silicia; while others suppose it to arise from the nature of the process employed.

The exports of iron from Sweden to the United States, from 1830 to 1838, were as follows :—

| | Bars. | Oth'r iron. | | Bars. | Oth'r iron. |
|---|---|---|---|---|---|
| 1830 | 15,532 | 422 | 1835 | 28,728 | 476 |
| 1831 | 23,133 | 688 | 1836 | 27,342 | 560 |
| 1832 | 20,002 | 1,222 | 1837 | 10,709 | 151 |
| 1833 | 20,644 | 343 | 1838 | 25,669 | 585 |
| 1834 | 19,618 | 287 | | | |

The total exports in 1838, were 81,754 tons.

Spain has iron of excellent quality. It is probably more ductile than any other. But Spain has never manufactured to any great extent.

An ancient writer (Diodorus Siculus) says: "The Celterberians make weapons and darts in an admirable manner; for they bury plates of iron so long under ground, until the rust hath consumed the weaker part, and so the rest becomes more strong and firm. Of this, they make swords and other warlike weapons; and, with these arms thus tempered, they so cut through everything in their way, that neither shield, helmet, or bone, can withstand them."

The quantity of iron sent from Spain to Great Britain, from 1711 to 1718, averaged 1,560 tons annually. From 1729 to 1735, the average was 1,770 tons. After about 1750, the exportation declined, and in 1795 ceased entirely. No iron comes to the United States from Spain.

IMPROVEMENT IN STEEL.—An eminent London cutler, Mr. Weiss, has remarked, that steel seemed to be much improved when it had become rusty in the earth, and provided the rust was not factitiously produced by the application of acids. He accordingly buried some razor blades, for nearly three years, and the result fully corresponded to his expectation. Analogy led to the conclusion that the same might hold good with respect to iron, under similar circumstances. So, with perfect confidence in the justness of his views, he purchased, as soon as opportunity offered, all the iron, amounting to fifteen tons, with which the piles of the London bridge had been shod. A part of this iron had become extremely and beautifully sonorous, and possessed a degree of toughness quite unapproached by common iron, and was, indeed, an imperfect carburet. It produced steel, of a quality infinitely superior to any with which, in the course of his business, Mr. Weiss had met; insomuch that, while it was in general request among the workmen for tools, they demanded higher wages for working it. About eight tons of the iron was found to be of this quality. The remainder was inferior, in consequence, as was supposed, of its having been less favorably subjected to the action of the agents producing the change.

Having given a brief review of the iron trade in Europe, we return to the history of this trade in the United States, and more particularly to that of Pennsylvania.

In Seybert's Statistics, prepared from official documents, he states that the manufacture of iron in the United States, in 1810, was as follows:—153 furnaces, making 53,908 tons iron; 320 forges, making 24,541 tons of bar iron; 316 trip-hammers and 34 rolling and slitting-mills, which required 6,500 tons of iron, and 410 naileries, in which 15,727,914 pounds of nails had been made. The value of these manufactures was $14,364,526.

In 1818, there were in Pennsylvania, 44 blast furnaces, 68 forges, and 175 naileries.

In 1830, a convention of manufacturers of iron was held in Philadelphia, for the purpose of collecting information in answer to a call made upon the Secretary of the Treasury. They prepared the following statement, which is believed to be as precise and accurate as any statement in reference to this trade, ever laid before the public:—

The committee on manufactures of iron, appointed by the convention assembled at Philadelphia, to examine the returns received, in answer to the circulars adressed to different individuals engaged in that branch of industry, report the following tabular statement as the result of their investigations:—

| | 1828. | | | 1830. | | |
|---|---|---|---|---|---|---|
| | No. Furnaces. | Tons Pig Iron. | Tons Castings. | No. Furnaces. | Tons Pig Iron. | Tons Castings. |
| Pennsylvania | 44 | 24,522 | 3,693 | 45 | 31,056 | 5,506 |
| New Jersey | 11 | 1,783 | 6,264 | 10 | 1,671 | 5,615 |
| Maryland | 5 | 2,247 | 483 | 6 | 3,163 | 1,259 |
| Virginia | 2 | 400 | 50 | 2 | 538 | 43 |
| Delaware | 1 | 450 | 350 | 7 | 5,400 | 250 |
| Ohio | .. | .... | .... | 1 | 450 | 350 |
| Missouri | .. | .... | .... | 2 | 590 | 250 |
| Total | 68 | 29,652 | 10,840 | 73 | 42,868 | 13,273 |

One furnace erected in Pennsylvania in 1830, will, in 1831, make 1,100 tons of pig iron.

In addition to the 73 furnaces mentioned in the preceding table, from which detailed returns had been received, the committee had information of 129 furnaces, in the States of Pennsylvania, New York, Vermont, Massachusetts, Connecticut, Tennessee, New Hempshire, Virginia, and Ohio, in actual operation; but from them had then received no returns. Taking the production of the 73 furnaces from which returns have been received, as the rate for estimating the whole, and the following would be the result:—

| | Furnaces. | Pig Iron. | Castings. | Total Tons. |
|---|---|---|---|---|
| 1828 | 192 | 90,368 | 33,036 | 123,404 |
| 1830 | 202 | 118,620 | 36,728 | 155,348 |

But as the greater part of the furnaces, not included in the returns, are situated in districts where but few castings are made, the committee have not felt authorized to estimate the quantity of castings made at them at more than about 5 per cent of their entire production, which would give the following proportions and results:—

| | Furnaces. | Pig Iron. | Castings. | Total Tons. |
|---|---|---|---|---|
| 1828 | 192 | 108,564 | 14,840 | 123,404 |
| 1830 | 202 | 137,075 | 18,273 | 155,348 |

From the best information the committee have been able to collect on this subject, they estimate that of the pig iron made in these years, about 10,000 tons per annum have, upon an average, been converted, in the air furnaces and cupolas, into castings, leaving to be manufactured into bar iron—

In 1828, of pig iron, 98,564 tons, making of bars, 70,403 tons.
In 1830, " 127,075 " " " 90,768 "

And which quantities severally correspond, with remarkable proportional accuracy, with the returns from 132 forges, which accompanied the returns from the 73 furnaces first mentioned. In East Jersey, in a part of Connecticut, in a large district of New York, and in Vermont, bar iron is extensively made by the process technically denominated "blooming," or by a single operation from the ore, without the intervention of the blast furnace. The returns already received, justify the committee in putting down this description of bar iron, for the year 1828, at 5,341 tons; 1830, 5,853 tons, of which 2,197 tons were East Jersey, making a total of bar iron for 1828, of 75,744 tons; 1830, 96,021 tons, and the entire quantity of iron, in its first stage, as shown in the following table:—

| | 1828. | 1830. |
|---|---|---|
| Pig Iron.....tons | 108,564 | 137,075 |
| Castings for blast furnaces | 14,840 | 18,273 |
| Bloomed bar iron, for the years respectively, reduced to pig iron, at 28 cwts. to the ton of bar | 7,477 | 8,194 |
| Total iron, in pigs and castings | 130,881 | 163,542 |

Total increase of all kinds of iron in two years, very nearly 25 per cent.

For the purpose of determining the value of the above iron, the committee have taken the average at the principle sea-ports, and those of Pittsburgh and Cincinnati, and have estimated that two-thirds of the bar iron made in the United States, is sold in the Western markets. The proportion may be greater, which would increase the entire value.

In 1828, the average price of American hammered iron, in the principal cities east of the Susquehannah, was $105, and at Pittsburgh and Cincinnati, $125; the average, estimated as above, would be $118¾. In 1830, the prices were $90 and $100, giving an average of $96¾. Castings from the blast furnaces are valued at $60, although many sell higher, and from the air furnace and cupola at 4½ cts. per lb., which is certainly not above the average rate.

At these prices the aggregate value of the iron made in 1828, would be $10,861,440, and in 1830, $11,444,410.

Increase in market value, in two years, less than 5¼ per cent.

In November, 1831, the friends of domestic industry held a convention in the city of New York, and in making their report on the iron trade, availed themselves of the information furnished by the Philadelphia convention of 1830, which they pronounced as "precise and accurate as any that had been submitted to the public." They added some new information, of which we take several items. In 1828, an addition was made to the duty on hammered iron, of $4 40 per ton, and on rolled iron of $7.

In the following year, the price fell to $114¾, and in 1830, $95¾ per ton; showing a decline, in two years, of $21¾ per ton, in consequence of competition here, for there was no corresponding decline abroad. The prices of iron at Pittsburgh and Cincinnati, at different periods, furnish data for important inferences. In the years 1818, '19, '20, bar iron in Pittsburgh was sold at from $100 to $200 per ton. In 1831, the price was $100 per ton. In 1820, axes were $24 per dozen; in 1831, $12. At least 600 tons of iron, made in Pittsburgh, were manufactured, in 1831, into various articles, in that city. There were then eight rolling and slitting-mills in Pittsburgh. Thirty-eight new furnaces had been erected, since 1824, in the western parts of Pennsylvania, and that part of Kentucky bordering on the Ohio river. The quantity of iron rolled in Pittsburgh, was, in 1828, 3,291 tons; 1829, 6,217; 1830, 9,282, being an increase of nearly 200 per cent in two years.

In Cincinnati, from 1814 to 1818, bar iron was from $200 to $220 per ton; in 1826, bar iron assorted, $125 to $135; 1828, $115 to $125; 1831, $100 to $110.

In 1842, when the great tariff question was occupying a large share of the public attention, a convention of iron-masters assembled at Harrisburgh. Committees from various parts of the State prepared with great labor a mass of valuable information relating to the iron manufacture; showing the number and product of the iron works in Pennsylvania, at that time, the number of hands employed, and the consumption of various articles of produce and merchandise, in consequence of these operations. The intention was to show the effect of the prosperity of our manufactures in creating a home market. These results are embodied in the following interesting tabular statement:—

NUMBER AND PRODUCT OF THE IRON WORKS IN PENNSYLVANIA, IN 1842.

*With the number of Hands employed, the Consumption of various Articles, and Total Value of the same.*

| PRODUCT. | Tons. | Price. | Value. | Hands. | CONSUMPTION. Dependencies. | Grain. | Beef & Pork. | Tobacco. | Shoes. | Groceries. | Dry Goods. | Hay, &c. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $ | $ | | | *bush.* | *lbs.* | $ | $ | $ | $ | $ | $ |
| 22 rolling-mills, producing, viz:— | | | | | | | | | | | | | |
| Bar iron | 20,800 | 85 | 1,768,000 | | | | | | | | | | |
| Boiler iron | 2,400 | 110 | 264,000 | | | | | | | | | | |
| Sheet iron | 1,200 | 130 | 156,000 | | | | | | | | | | |
| Nail iron | 8,960 | 110 | 985,600 | | | | | | | | | | |
| Nail plate iron | 2,400 | 90 | 216,000 | | | | | | | | | | |
| 54 forges, producing, viz:— | | | | | | | | | | | | | |
| Blooms | 17,725 | | 3,389,600 | 1,678 | 8,390 | 274,040 | 1,386,700 | 13,818 | 34,818 | 107,250 | 147,400 | ..... | 591,368 |
| Deduct manufact'ed into boiler, sheet, nails, and nail plates. | 14,960 | | | | | | | | | | | | |
| | 2,765 | 60 | 165,900 | | | | | | | | | | |
| Hammered bar | 4,105 | 90 | 369,450 | | | | | | | | | | |
| | | | 535,350 | 1,666 | 8,330 | 338,420 | 1,821,200 | 8,717 | 26,378 | 71,460 | 115,660 | ..... | 784,041 |
| 79 furnaces, producing, viz:— | | | | | | | | | | | | | |
| Castings | 4,580 | 65 | 297,700 | | | | | | | | | | |
| Pig iron | 80,305 | | | | | | | | | | | | |
| Deduct 42,620 tons bar and blooms, manufactured from pig, allowing 2,500 per ton. | 53,287 | | | | | | | | | | | | |
| | 27,018 | 30 | 810,540 | | | | | | | | | | |
| | | | 1,108,240 | 5,063 | 25,315 | 674,013 | 2,448,200 | 28,336 | 85,230 | 277,900 | 406,618 | 210,000 | 1,672,204 |
| 7 foundries, producing | 300 | 90 | 27,000 | 81 | 155 | 1,500 | 2,800 | 90 | 550 | 1,500 | 1,500 | ..... | 4,980 |
| Total, 172 works | 74,528 | | 5,060,190 | 8,438 | 42,190 | 1,287,973 | 5,698,900 | 51,461 | 146,486 | 458,110 | 671,208 | 210,000 | 3,052,588 |
| 131 furnaces, estimated, pig iron | 109,695 | | | | | | | | | | | | |
| Less, manuf. bars and blooms. | 33,262 | | | | | | | | | | | | |
| | 76,433 | 30 | 2,292,990 | 6,856 | 34,280 | 911,848 | 3,866,296 | 39,079 | 115,386 | 377,080 | 650,194 | 275,000 | 2,254,531 |
| 84 forges, rolling-mills, &c., bar, bloom | 27,410 | 75 | 2,055,750 | 1,870 | 6,850 | 250,710 | 1,315,200 | 9,233 | 25,865 | 73,212 | 108,230 | ..... | 481,868 |
| 378 works in Pennsylvania, producing | 178,371 | | 9,408,930 | 16,664 | 83,320 | 2,450,531 | 10,880,396 | 99,773 | 286,737 | 908,402 | 1,329,623 | 485,000 | 5,788,987 |

The discovery of the *anthracite* process of smelting iron ore, was, as we have already remarked, an event of the highest importance to Pennsylvania. On the 18th of January, 1840, a dinner was given at Pottsville, by W. Lyman, Esq., on the occasion of his having successfully introduced this process. At that dinner, Nicholas Biddle, Esq., of Philadelphia, made the following forcible and appropriate remarks, which will be responded to by every true Pennsylvanian:—

"And this, after all, is the great mystery—the substitution of what is called the hot blast for the cold blast. Let us see the changes which this simple discovery is destined to make. As long as the iron ores and the coal of the anthracite region were incapable of fusion, the ores were entirely useless, and the coal nearly unavailable for manufactures; while, as the disappearance of the timber made charcoal very expensive, the iron of Eastern Pennsylvania was comparatively small in quantity, and high in price, and the defective communication with the interior made its transportation very costly. The result was, that with all the materials for supplying iron in our own hands, the country has been obliged to pay enormous sums to Europeans for this necessary. In two years alone, 1836–7, the importations of iron and steel amounted to upwards of $24,000,000. The importations for the last five years have been about $49,000,000. It is especially mortifying to see that even in Pennsylvania, there have been introduced, within the last seven years, exclusive of hardware and cutlery, nearly 80,000 tons of iron, and that of these there were about 49,000 tons of railroad iron, costing, probably, $3,500,000. Nay, this very day, in visiting your mines, we saw, at the very farthest depths of these subterranean passages, that the very coal and iron were brought to the mouth of the mines on rail-tracks of British iron, manufactured in Britain, and sent to us from a distance of 3,000 miles. This dependence is deplorable. It ought to cease forever; and let us hope that with the new power, this day acquired, we shall rescue ourselves from such a costly humiliation.

"We owe it to ourselves not thus to throw away the bounties of Providence, which, in these very materials, has blessed us with a profusion wholly unknown elsewhere. The United States contain, according to the best estimates, not less than 80,000 square miles of coal, which is about sixteen times as much as the coal measures of all Europe. A single one of these gigantic masses, runs about 900 miles, from Pennsylvania to Alabama, and must of itself embrace 50,000 square miles, equal to the whole surface of England proper. Confining ourselves to Pennsylvania alone—out of fifty-four counties of the State, no less than thirty have coal and iron in them. Of 44,000 square miles which form the area of Pennsylvania, there are 10,000 miles of coal and iron, while all Great Britain and Ireland have only 2,000; so that Pennsylvania has five times as much coal and iron as the country to which we annually pay eight or ten millions of dollars for iron.

"Again, the anthracite coal fields of Pennsylvania, are six or eight times as large as those of South Wales. Of these great masses, it may be said, confidently, that the coal and iron are at least as rich in quality, and abundant in quantity as those of Great Britain, with this most material distinction in their favor, that they lie above the water level, and are easily accessible, while many of the mines of England are a thousand or fifteen hundred feet below the surface. With these resources you would have abundant employment, if you could only supply the present wants of the country, for which we are now dependent on foreigners. But the

sphere of demand is every day widening for the consumption of iron. The time HAS come, when nothing but iron roads will satisfy the impatience of travellers, and the competition of trade." * * *

"If coal and iron have made Great Britain what she is,—if this has given her the power of 400,000,000 of men, and impelled the manufactures which have made us, like the rest of the world her debtors, why should not we, with at least equal advantages, make them the instruments of our own independence?"

The following information is derived from the report of a committee appointed by the "Iron and Coal Association of the State of Pennsylvania," at a convention held in Philadelphia, on the 9th of January, 1846.

This information was obtained by a committee of the association, who, in 1845, addressed circulars to the manufacturers throughout the State, soliciting accurate information respecting the character and product of each establishment, the number of hands employed, &c., &c. The data thus obtained, was placed by the association in the hands of a committee, for the purpose of being arranged and embodied in a "Report upon the Iron and Coal Trade of Pennsylvania, and their effect upon Agriculture," in order to enlighten the public mind upon the great importance of these indispensable branches of our national industry, without which a nation can never be entirely independent, either in peace or war. Iron and coal being the chief agents of civilization and happiness, exercise a boundless influence on the human race.

We continue the tables showing the number of furnaces, forges, and rolling-mills in Pennsylvania, and their product in 1846:—

THIRTY-TWO ROLLING-MILLS AND NAIL FACTORIES.

| Names of works. | Location. | Proprietors. | Bar iron. | Boiler plate. | Sheet iron. | Nails. | Hands. |
|---|---|---|---|---|---|---|---|
| ..... | Pittsburgh... | H. S. Spang & Co.... | 900 | 150 | 150 | 800 | 100 |
| ..... | " ... | Shoenberger & Co.... | 3,000 | ... | ... | .... | 150 |
| ..... | " ... | Lyon, Shorb & Co.... | 2,000 | 250 | 250 | 500 | 150 |
| ..... | " ... | Bissel & Co..... | 2,200 | ... | ... | 1,000 | 210 |
| ..... | " ... | Miltenberger..... | 1,500 | ... | ... | .... | 80 |
| ..... | " ... | Laurents & Co..... | 2,000 | .... | ... | .... | 100 |
| ..... | " ... | Kings, Higbee & Co... | 500 | ... | ... | 1,000 | 80 |
| ..... | " ... | Smith, Royer & Co.... | 500 | ... | ... | 1,000 | 80 |
| W. Brandywine | Chester coun'y | ..... | ... | 400 | ... | .... | 11 |
| Cain..... | " " | ..... | ... | ... | 200 | .... | 12 |
| Triadelphia... | " " | ..... | ... | 400 | ... | .... | 12 |
| Hibernia ..... | " " | ..... | ... | 400 | ... | .... | 10 |
| Brandywine... | " " | ..... | ... | 400 | ... | .... | 11 |
| Rokeby ..... | " " | ..... | ... | 400 | ... | .... | 11 |
| Lowell..... | " " | ..... | 300 | ... | 200 | 60 | 12 |
| Bellefonte..... | Centre " | Valentines & Thomas. | 900 | ... | ... | .... | 12 |
| Howard..... | " " | Valentines, Harris & Co | 900 | ... | ... | .... | 12 |
| Milesburg..... | " " | James Irvin & Co.... | 900 | ... | ... | .... | 12 |
| Eagle..... | " " | R. Curtin & Sons..... | 900 | ... | ... | .... | 12 |
| Fairview ..... | Cumberl'd " | O. A. Heister ..... | 700 | ... | ... | 300 | 35 |
| Duncannon ... | Perry " | W. L. Fisher..... | 1,100 | ... | ... | 1,000 | 180 |
| Montalto ..... | Franklin " | S. & H. Hughes..... | 500 | ... | ... | 100 | 25 |
| Conshohocken. | Montgo'ry " | J. Wood & Son ..... | 400 | ... | 200 | .... | 30 |
| Norristown ... | " " | Reeves & Whittaker.. | ... | ... | ... | 1,000 | 50 |
| Reading..... | Berks " | Keim, Whittaker & Co. | 1,400 | ... | ... | 200 | 90 |
| Vartic ..... | Lancaster " | Coleman's estate..... | 200 | ... | 200 | 600 | 40 |
| Phœnixville*.. | Chester " | Reeves & Whittaker.. | ... | ... | ... | 1,300 | 52 |
| Mason's* ..... | " " | R. W. Mason & Co ... | ... | ... | ... | 1,000 | 42 |
| Lowell*..... | " " | ..... | ... | ... | ... | 60 | 16 |
| Brandywine*... | " " | ..... | ... | ... | ... | 100 | 6 |

* Nail-factories.

PRODUCT OF FIFTY-FOUR FORGES.

| Names | Location. | Proprietors. | Bar iron. | Boiler plates. | Hands. |
|---|---|---|---|---|---|
| Bedford | Bedford | S. King & Co | 307 | 140 | 40 |
| Hopewell | " | D. Loy & Co | 200 | 150 | 30 |
| Hopewell | " | Milliken & Benedict | 200 | 100 | 25 |
| Maria, 3 | " | Shoenberger & Co | 2,081 | ... | 107 |
| Martha | " | Shoenberger & Co | 922 | ... | 55 |
| Dowell | Berks | J. Sidel | 300 | ... | 25 |
| Union | " | George Regan | ... | 40 | 8 |
| Rockland | " | A. U. Snyder | ... | 100 | 20 |
| Gibraltar, 3 | " | S. Seyfort | 500 | 140 | 58 |
| North Kill | " | Joseph Seyfort | 450 | ... | 40 |
| Coventry | Chester | | 225 | ... | 14 |
| Springton | " | | 325 | ... | 15 |
| Hibernia | " | | 300 | ... | 17 |
| Mary Ann | " | | ... | 200 | 17 |
| Pleasant Garden | " | | ... | 200 | 16 |
| Bellefonte | Centre | Valentines & Thomas | 900 | ... | 45 |
| Howard | " | Valentines, Harris & Co. | 900 | ... | 45 |
| Milesburg | " | James Irvin & Co | 800 | ... | 45 |
| Eagle | " | R. Curtin & Sons | 700 | ... | 35 |
| Washington | Clinton | Irvin, Pyle & Co | 300 | 100 | 40 |
| Catawissa | Columbia | | ... | 150 | 15 |
| Berwick | " | | ... | 200 | 20 |
| Liberty | Cumberland | H. G. Moser & Co | 325 | ... | 25 |
| Laurel | " | | 250 | 200 | 40 |
| Valley | Franklin | | ... | 60 | 20 |
| London | " | | ... | 60 | 20 |
| Mount Pleasant | " | Dunn & Bark | 60 | 120 | 18 |
| Montalto | " | S. & H. Hughes | ... | 500 | 40 |
| Caledonia | " | S. D. Paxton & Co | 35 | 195 | 23 |
| Barre | Huntington | S. M. Green & Co | 900 | ... | 60 |
| Franklin | " | S. Royer | 450 | ... | 25 |
| Ætna | " | H. S. Spang | 800 | ... | 60 |
| Antes | " | Graham & McCamant | 400 | ... | 30 |
| Juniata | " | | 1,225 | ... | 58 |
| Speedwell | Lancaster | J. Reynolds | ... | 250 | 30 |
| Whi e Rock | " | J. Alexander | ... | 200 | 20 |
| Vartie, 3 | " | Coleman's estate | 1,000 | ... | 65 |
| Union | Lebanon | J. B. Weidman | ... | 200 | 25 |
| Munroe | " | J. B. Seidell | 200 | ... | 25 |
| Freedom | Mifflin | Rawle & Hall | 650 | ... | 33 |
| Brookland | " | M. Criswell & Co | 700 | ... | 70 |
| Rebecca | " | Rogers & Co | 325 | ... | 17 |
| Fio | Perry | | 450 | 100 | 45 |
| Berwick | Schuylkill | D. Focht | ... | 100 | 25 |
| Hecla | " | B. & M. Jones | ... | 100 | 20 |
| Castle Finn | York | Coleman's estate | 125 | 250 | 45 |
| Spring | " | J. Harmer | ... | 250 | 50 |
| Woodstock | " | H. Y. Slaymaker & Co. | 420 | ... | 40 |

The report says, the account for 1846 will therefore stand thus:—

| | | | |
|---|---|---|---|
| Charcoal furnaces | tons | 207 | 173,369 |
| Antracite furnaces | | 7 | 16,487 |
| Furnaces up to 1842 | | 213 | 189,856 |
| New charcoal furnaces, since 1842 | | 67 | 75,200 |
| New anthracite furnaces, since 1842 | | 36 | 103,000 |
| Furnaces in 1846 | | 316 | 368,056 |
| Increase on old furnaces | tons | | 37,971 |
| Increase on new furnaces | | | 178,200 |
| Total increase | | | 216,171 |

More than 100 per cent since the bill of 1842. This prodigious increase has of course called for a large investment and employment of capital, which, after much reflection and experience, was estimate at $47 per ton, for every ton of charcoal pig metal manufactured. This would therefore give, on 75,200 tons, $3,534,400; and for every ton of anthracite pig metal, $25 per ton, $2,575,000—making the enourmous sum of $6,109,400, invested in furnaces alone, since 1842 The aggregate capital, therefore, would be calculated upon the same estimate:—

| | Tons. | Capital. |
|---|---|---|
| Charcoal furnaces, previous to 1842..... | 173,369 | $8,148,343 |
| Anthracite furnaces, previous to 1842..... | 16,487 | 412,175 |
| New charcoal furnaces, since 1842..... | 37,971 | 3,534,400 |
| New anthracite furnaces, since 1842..... | 178,200 | 2,575,000 |
| Total, 316 furnaces..... ..... | 368,056 | $14,669,918 |
| This quantity, 368,056 t'ns, at $30 p. ton, would be worth | $11,041,680 | |
| It is probable that one-half of this metal is converted into bar, hoop, sheet, boiler iron, and nails, at a cost of at least $50 per ton more..... | 9,201,400 | |
| Capital for conversion, at $20 per ton..... | | 3,680,560 |
| The other half into castings, at $20 per ton..... | 3,680,560 | |
| Capital for conversion, at $10 per ton..... | | 1,840,280 |
| Total value of product, and capital invested.... | $23,923,640 | $20,190,758 |

And where does this enormous sum of money go, and how is it expended? All in labor and agricultural propucts; for of what materials is iron composed? Coal, limestone, iron ores, sand, and fire-clay, almost worthless, unless converted into iron. The number of men employed in producing the above iron, would be, in the charcoal operations, one man to every twenty tons, and in the anthracite, one man to every twenty-four tons of pig metal. This includes all the miners of coal and limestone, wood-choppers, &c. Upon this estimate, there would be employed—charcoal, 12,428; anthracite, 4,978—17,406. Allowing a wife and four children, as supported by this labor, we have a population of 87,030. To which, if we add the labor employed in its conversion into bars, hoops, sheets, boiler-plates, nails, castings, railway iron, &c., &c., which would more than double those *directly* dependent, we should have, upon this supposition, 174,060 men, women, and children. But when we look still further, at the labor creat d by this business, in railways, canals, &c., who can estimate it—both of man and horse!"

In 1839, the iron business in this country was in a sound, healthy, and prosperous condition, and from its importance and extent, it had attracted the attention of a number of capitalists. The long-sought discovery made at the close of that year, of using anthracite coal for smelting, in furnaces and rolling-mills, gave a new impetus to this branch of business; and it has since been prosecuted with great vigor and complete success, and is destined to place Pennsylvania in advance of all her sister States, anthracite coal being almost exclusively confined to this State. This important discovery aroused the energy of the bituminous coal operators, and introduced into the State the process of *coke* pig iron, which has so long and so successfully been practised in England; and which has there produced so many extensive establishments.

In 1841, under the Compromise Act, the duty on bar iron was reduced $3 per ton; and on pig iron, 50 cents below the duties of 1839. Owing

to the over-production of iron in England, in 1841, and the ruinously low prices obtained for it, an effort was made to induce Congress to prevent that act from going into effect, as the result of such a reduction of duties would paralyze the industry of this country, and ruin those engaged in this branch of business. This effort, as it is well known, proved unavailing, and the prices of iron declined from 25 to 40 per cent. The price of American bar iron, which, in 1839, was $100 per ton, declined, in 1842, to $75; blooms, from $75, to $38a40, and pig iron from $33, to $19a20 per ton. The consequence was, the stoppage of most of the furnaces, forges, foundries, rolling-mills, and work-shops; and dismay and ruin spread throughout the land, and labor sought employment in vain.

So wide-spread and universal was the ruin, that Congress was induced to pass the tariff bill of 1842, which has since so materially aided in extending the iron trade.

One of the tables embraced in the above report, contained a list of the anthracite furnaces. To this list we have added the new works erected during the past year, and present the following table as containing a complete list of all these furnaces at the present time, with their annual product. The increase in this State, of this branch of the iron trade, has no parallel in history:—

PENNSYLVANIA ANTHRACITE FURNACES, ERECTED SINCE 1839, AND IN BLAST IN 1847, WITH THEIR ANNUAL PRODUCT.

| Names of works. | Proprietors. | No. | Tons produc'd. |
|---|---|---|---|
| Allentown | Bevan & Humphreys | 2 | 7,000 |
| Birdsboro' | E & G. Brooks | 1 | 1,750 |
| Bloomsburg | Paxton, Fisher & CO. | 2 | 8,500 |
| Conshohocken | Stephen Colwell | 1 | 3,000 |
| Chickanalingo | E. Haldeman | 1 | 2,500 |
| Henry Clay | Eckert & Brother | 1 | 4,500 |
| Henry Clay | J. Platt | 1 | 1,750 |
| Columbia | J. & P. Groves | 1 | 2,000 |
| Haldeman | P. Haldeman | 1 | 1,500 |
| Harrisburgh | David R. Porter | 1 | 3,500 |
| Lackawanna | Scranton & Co. | 2 | 3,500 |
| Lehigh Crane Iron Company | Crane Iron Company | 3 | 13,000 |
| Lebanon | Coleman | 2 | 7,000 |
| Lightstreet | | | 1,500 |
| Montour Iron Works | Montour Iron Company | 4 | 15,000 |
| Mauch Chunk | S. & W. L. Richards | 1 | 1,000 |
| | J. McDowell | 1 | 1,500 |
| Phœnix Works | Reeves, Buck & Co. | 3 | 12,000 |
| Pioneer | G. G. Palmer | 1 | 1,800 |
| William Penn | Livingston & Lyman | 1 | 3,250 |
| Red Point | Samuel R. Wood | 1 | 3,750 |
| Roaring Creek | S. R. Wood | 1 | 2,000 |
| Shamokin | Shamokin Iron Company | 1 | 2,500 |
| Shawnee | Holmes, Myers & Co. | 1 | 1,750 |
| Spring Mill | Kunzi & Farr | 1 | 2,500 |
| St. Clair | Burd & Patterson | 2 | 3,500 |
| Sarah Ann | Porter & Stewart | 1 | 2,000 |
| Valley | Pomeroy & Harrison | 1 | 1,750 |
| Total | | 40 | 121,800 |

OUT OF BLAST.

| | | |
|---|---|---|
| Elizabeth, at South Easton, can produce | tons | 4,000 |

The discovery of the process of making anthracite iron, and the reduced price at which it can be manufactured, induced a number of capitalists to put up extensive rolling-mills.

In 1845,* the first bar of railroad iron was manufactured in the United States. Since that period, various establishments have gone into operation, and about 60,000 tons can now be manufactured annually.

The following rolling-mills have been erected and put into operation in this State, within the last four years. The annual product, and the kind of iron manufactured at each mill, is added:—

ANTHRACITE ROLLING-MILLS.

| | Names of works. | Proprietors. | Species made. | Tons. |
|---|---|---|---|---|
| 1 | Montour Iron-works, Danville. | Murduck, Leavitt & Co. | Iron rails..... | 10,000 |
| | | | Plate rails.... | 1,000 |
| 2 | Wilkesbarre..... | T. T. Payne..... | Rail & plate.. | 6,000 |
| 3 | Harrisburg..... | Burke ..... | Plate ..... | 1,500 |
| 4 | Philadelphia ..... | Thomas Hunt..... | Rails..... | 2,000 |
| 5 | " ..... | Robinson & Verree ... | Plate ..... | 1,200 |
| 6 | " ..... .. | Leibert & Wainwright. | Rails..... | 5,000 |
| 7 | " ..... | Thomas & Co..... | Bar and rod.. | 2,000 |
| 8 | " ..... | James Rowland, 2 mills. | Plate & round. | 4,500 |
| 9 | Manayunk..... | B. & C. B. Buckley.... | Plate ..... | 500 |
| 10 | Phœnixville..... | Reeves, Buck & Co ... | Rails..... | 12,000 |
| 11 | Norristown ..... | Moore & Hooven ..... | Merchant bar. | 2,000 |
| 12 | Pottsgrove..... | Potts..... | Merchant bar. | 2,000 |
| 13 | Pine Grove ..... | Joseph Baily..... | Plate ..... | 850 |
| 14 | Reading..... | Sabata & Co..... | Axle..... | 1,000 |
| 15 | " ..... | Jones & Co..... | Small iron... | |
| 16 | " ..... | Seyfort & McManus... | Bar & nails... | 2,500 |
| 17 | Little Schuylkill..... | ..... | Small iron... | 500 |
| 18 | Lackawanna. ..... | Scranton & Co..... | Plate & rails. | 6,000 |
| | Total tons produced† ..... | | | 60,550 |

## Art. IV.—THE AMERICAN ART UNION.

"THE AMERICAN ART UNION" was incorporated by the Legislature of the State of New York, on the 29th day of January 1844, for the purpose of advancing the interests of the fine arts throughout the United States; a former society, which had been organized under the name of "The Apollo Association," having been merged in this body. By the constitution, it is placed under the management of a committee who are

* The author of this paper, Mr. Childs, is probably mistaken in regard to the manufacture of the first railroad iron in the United States. According to Mr. J. F. Tanner, the secretary of the Tredegor Iron Company of Virginia, railroad iron was first manufactured at the works of that company, in 1837. From an article from a stockholder of the Tredegor Company, on the subject, see Merchants' Magazine for May, 1847, page 530.—ED. MERCHANTS' MAGAZINE.

† The foregoing article on the Iron Trade was originally prepared by C. G. CHILDS, Esq., the editor of the "Commercial List," published in Philadelphia. The Commercial List was established by its present editor and proprietor, in 1835. Mr. Childs has been indefatigable in his exertions to add to the value and interest of his journal, and has succeeded in furnishing more statistical information than perhaps any other similar publication in the Union. We would take this opportunity of acknowledging our indebtedness to Colonel Childs for the privilege of producing the present paper in our Magazine, which, it will be perceived by a note on a former page, has been copyrighted by the author.—ED. MERCHANTS' MAGAZINE.

not professional artists, yet who have in charge the general supervision and direction of its affairs. This committee are empowered to purchase such works of art, executed by the artists of our own country, at home or abroad, as they deem worthy of selection, and the resources of the society will warrant; to appoint sub-committees and such honorary secretaries and other agents as may be required; to prescribe their duties and fix their salaries, and to adopt the most proper measures for the purpose of carrying out the design of the association. They are, moreover, invested with the power of framing a code of laws for their own government, in accordance with the constitution.

The funds which are obtained by the individual subscription of the members are applied every year to the purchase of an engraving, and each member receives a copy of this engraving for every five dollars paid by him into the treasury. The surplus of the money, after defraying the necessary expenses of the society, is appropriated to the purchase of native works of painting and sculpture, which are annually distributed by lot—every member, for each sum of five dollars which is thus paid by him, holding a share in the distribution.

Through the agency of the society thus organized, with a distinguished citizen of the commercial metropolis as its president, a picture gallery has been opened to the public, without charge, in the city of New York, containing the paintings of domestic artists, which are open to public inspection. According to the report of December, 1846, the society had 4,457 members, 1,224 having been added during the last year. Besides, the income of the institution has grown to 22,285 dollars; and 145 paintings, varying in price from $15 to $600, have been purchased from 65 artists, residing in various parts of the country. The association has enrolled among its members some of the most prominent individuals in different quarters of the Union, and it appears to be commencing its career under favorable auspices.

It will hardly be denied that the progress of the fine arts in our own country is an interesting subject of consideration, and we need only to observe the causes which have borne upon their history with us to understand their present condition. In the first place, so far as those arts are concerned, we start upon a different basis from that of the monarchies of the old world, where the fine arts have achieved their most brilliant triumphs. In those nations constituting the ancient seat of the arts, where they in fact first originated, and have been gradually perfected to their present state, splendid galleries of paintings and sculpture have sprung up under the auspices of their respective governments, or of individual wealth. Among these are the rich collection of Italy and France, Germany and Great Britain, Prussia, Austria, Bavaria, and Spain, as well as other parts of Europe, besides the treasures of art which are accumulated in the numerous churches and cathedrals of that portion of the globe. The consolidation of political power in those governments which have been thus enabled to patronize the arts, in the establishment of galleries and in the decoration of palaces; the perpetuation of estates by which the best works of art have been accumulating for ages in the hereditary seats of an ancient nobility; more of leisure on the part of the opulent, affording a systematic and studious cultivation of art itself for its own sake, have all tended doubtless to advance the progress of painting, as well as architecture and sculpture. With us, however, circumstances are differ-

ent. Our own country is comparatively new, and it is but a little more than two centuries since the whole domain was a trackless wilderness. The population which compose it, have been placed in that condition in which they have been impelled; for the most part, to the necessity of exertion for the purpose of gaining a subsistence, in the restless and active pursuits of trade and commerce, manufactures, or agricultural enterprise. The fine arts have been accordingly patronized by but a few, and have been obliged to appeal to the public, to refer to the arbitration of a body which its devotees might organize for themselves, or to seek in other countries a remuneration for its labors. The instability of private fortunes, with us, and the comparatively small amount of accumulated wealth, have moreover prevented the systematic patronage of those arts, and accordingly it has happened that a genuine work of the more distinguished ancient masters has seldom strayed among us.

In the larger cities of the Union, something has indeed been done for the purpose of evoking a taste for the fine arts. The gallery of the Athenæum in Boston, the American Academy of Design, in New York, and the Philadelphia Academy, as well as a few private collections, have existed, in which some of the best pieces of sculpture, and painting, of native production, have been displayed; but these, we believe, have been established for purposes of pecuniary enterprise, and the gratification of individual taste, rather than for any public object. The national government has, moreover, encouraged to some extent those particular branches of art, by causing to be executed several paintings, illustrative of American history, for the purpose of decorating the walls of the capitol, as well as a statue of Washington, which is now at the seat of government. The local governments of some of the States have also afforded some encouragement to the same course. This policy has, however, been exercised for temporary and specific objects, and not from motives inducing their systematic and uniform patronage.

But notwithstanding the discouragements to which we have alluded, the progress of the arts with us has been as rapid as could reasonably have been expected; and we have produced artists who, from an assiduous study of the master-pieces of the old world, have earned a solid and lasting reputation. Among those we would allude first to the name of Washington Allston, who may be considered perhaps the first painter that our own country has produced, and who, in any age, would be deemed a great master. We are not aware that he has ever been employed to execute any national piece for a public object; yet his works adorn some of the most distinguished private galleries of Europe. It may not, moreover, be generally known, that his "Angel Uriel in the Sun," now in the possession of the Marquis of Stafford, induced the directors of the British Gallery to present to the artist the sum of 150 guineas, as a token of their approbation of that work. We ought not, moreover, to forget that we have produced a West and a Stuart, as well as other artists, not only in painting, but in sculpture also, who have embodied a lasting fame upon the glowing canvass, and in the ever-during marble.

The benefits of the judicious and liberal encouragement of the fine arts are apparent. Through their aid the most important passages of history may be faithfully preserved upon the canvass, in a visible and almost indestructible form; the lineaments of illustrious men may be preserved; the countenances of departed friends may be made our companions in all

the colors of life and health, as they were wont daily to appear in our midst; the most precious gems of natural scenery may be transferred to our parlor walls, there to glow in unfading beauty; while the cold marble, in its plastic grace, may be made to perpetuate for ages the most perfect models of the antique, the heroic achievements of virtue, and the features of the great and good. Accordingly, we think that the fine arts, linked with pure principle, should be encouraged under judicious auspices, as the medium through which the circumstances and sentiment of history may be embodied, and the countenances of eminent individuals, as well as the most perfect specimens of scenic beauty, may be preserved by the pencil, or in the form of sculpture.

It appears that the principal governments of Europe systematically encourage high art, and it can hardly be doubted that our own should likewise do so, by the selection of the best and most deserving artists for the execution of national works. A series of such works from the pencil of such men as Allston or West, illustrating the national history, and decorating the walls of our public edifices, would be of a value far exceeding their cost, and objects of perpetual interest and admiration in all coming ages. It is, however, not the promiscuous encouragement of the arts in general, but the selection of their best pieces, that will secure the greatest advantages. In every department of enterprise there are doubtless many aspirants, who, from a spirit of self exaggeration, often receives less of attention than they expect, and by consequence deem their efforts overlooked, and themselves the objects of neglect. Let a discriminating public taste and judgment act upon the labors of those aspirants, through the agency of such voluntary associations as the one to which we have alluded, or other appreciating sources, and justice will be done, and the greatest good be most effectually secured. It is the design of the committee of management of the American Art Union to extend the benefits of the institution to every part of the nation.

## Art. V.—COMMERCIAL CITIES AND TOWNS OF THE UNITED STATES.

NUMBER I.*

We have published in former volumes of the Merchants' Magazine, a series of papers on the commercial and industrial resources of a majority of the States of the American Union, as well as occasional articles on the commerce of several of our principal cities and towns. With a view of continuing the plan as a permanent feature of the Magazine, we place at

* For an elaborate article on the "Commerce of Boston," see Merchants' Magazine, Vol. X., No. 5, May, 1844, pp. 421 to 434. Also, for an elaborate article, entitled "Progressive Wealth and Commerce of Boston," see Vol. XV., No. 1, July, 1846, pp. 34 to 50. For "Trade and Commerce of St. Louis," see Vol. XV., No. 2, August, 1846, pp. 162 to 171. For "Commerce of the City of New York," see Vol. XIII., No. 1, July, 1845, pp. 42 to 52. For "Commerce of Philadelphia," see Vol. XIV., No. 5, May, 1846, pp. 423 to 435. For "The City of Troy: its Commerce, Manufactures, and Resources, by one of its Merchants," see Vol. XIV., No. 6, June, 1846, pp. 515 to 523. For "Lowell and its Manufactures," see Vol. XVI., No. 4, April, 1847, pp. 356 to 363. The above are all elaborate articles. A great variety of statistical and commercial information, concerning these and other cities of the United States, will be found spread over the different volumes of this work, from its commencement, in 1839, to the present period.

the head of this article a general title, under which we propose to exhibit in a series of numbers, from time to time, the progress of every city and town in any way distinguished as a mart of commercial or manufacturing enterprise and industry. In the performance of an object so desirable, we feel at liberty to solicit the aid of intelligent correspondents in every section of the country, either in furnishing articles or such materials as can be more readily and accurately gathered upon the spot by residents; which we shall endeavor to group together, and exhibit in a full and comprehensive form. The Merchants' Magazine will, in this respect, continue to maintain its national character; and it will afford us great pleasure to receive contributions from the most remote sections of the Union, presenting the prominent facts connected with their commercial and industrial pursuits. It is alike our interest and our inclination to avoid everything of a sectional bias. We have no interest to subserve, aside from that of the Magazine, and the country in all its length and breadth.

## THE CITY OF BUFFALO.

The city of Buffalo, with which we commence a series of comprehensive papers on the trade, commerce, resources, &c., of the principal cities and towns in the United States, possesses a very commanding position, and no place in the interior of the country may be expected to surpass it in its future growth. It is situated at the northwest extremity of Lake Erie, near the commencement of Niagara River, its outlet, at the mouth of Buffalo Creek, which forms its harbor, 480 miles northwest from the city of New York, via the Hudson River, and the several railroads extending from Albany to Buffalo. Its progress in population has been singularly rapid. In 1810, it contained only 1,508 inhabitants; in 1820, 2,095; 1830, 8,653; 1840, 18,213, and in 1845, (by the last State census,) it had increased to 29,773. Of the population of 1840, 771 were employed in commerce; 1,851 in manufactures and trades; 71 in navigating the ocean; 347 employed on canals, lakes, and rivers, 211 in learned professions and engineering.

Buffalo was incorporated as a city, April 20th, 1832, is divided into five wards, and is governed by a mayor and common council, elected annually by the people. It was originally laid out by the Holland Land Company in 1801, and grew slowly from the time of its foundation until 1812. In that year it became a military post. In December, 1813, the place was burned by a combined force of British and Indians, with the exception of two buildings. It then contained 100 dwellings. This conflagration was ostensibly in retaliation for the burning of Newark, a small village in Canada, at the mouth of Niagara River; and it is remarkable that this burning of Newark was afterwards made the excuse for the Vandal conflagration of the city of Washington, in which the capitol, the finest senate-house in the world, was left in smouldering ruins. At the close of the war, the inhabitants of Buffalo received from the United States the sum of $80,000, in compensation for their losses by the conflagration. In 1817 Buffalo contained over 100 dwellings, many of which were of brick, and some of them large and elegant, most of which were built in 1816. It was incorporated as a village in 1822. In 1829 it contained 400 dwellings, and over 2,000 inhabitants. In April, 1833, a company was incorporated for the erection of a marine hospital. In May, 1834, a company was incorporated for constructing a marine railway, with dry or wet docks,

for building and repairing vessels. In April, 1835, the Sailors' and Boatmens' Friend Society was incorporated, for the purpose of improving the moral condition of the persons navigating inland waters. In 1841 the nett proceeds of the post-office at Buffalo, were $11,729. The commencement of the rapid growth, and great importance of Buffalo, dates from the completion of the Erie Canal, which was finished in 1825. It has an uninterrupted lake navigation of 1,500 miles, with a coast of 3,000 miles. The Ohio Canal has already added much to its business; and the Wabash and Erie Canal and the Illinois and Michigan Canal, will open to it the trade of a greatly enlarged extent of country.

The public buildings of the city are a court-house, jail, county clerk's office, two markets, in the upper story of one of which are the common council chamber and city offices, and seventeen churches, three Presbyterian, two Episcopal, one Methodist, one Baptist, three German Protestant, one Unitarian, two Roman Catholic, one Universalist, one Bethel, and two African. It has two banking-houses, an insurance company, an orphan asylum, a theatre, and several spacious and elegant hotels, of which the American is one of the finest in the country. The Young Men's Association is a flourishing literary institution, with a library of over 3,000 volumes of well-selected books, and it sustains an able course of literary and scientific lectures in the winter season, which are numerously attended.

The situation of Buffalo as a place for business is very commanding. It constitutes the great gate between the East and West, being at the western extremity of the Erie Canal, and at the eastern termination of the navigation of the great lakes, Erie, Huron, and Michigan. The ground on which it is built rises gradually from the creek, which runs through the south part, and at the distance of two miles, it becomes an extended and elevated plain, fifty feet above the level of the lake, furnishing a commanding view of the harbor, Lake Erie, Niagara River, the Canada shore, and the Erie Canal. The city is regularly laid out, with broad and straight streets, generally crossing each other at right angles. Main-street is over two miles long, and 120 feet broad; and it is lined on both sides with splendid and lofty stores, shops, dwellings, and hotels, presenting an imposing appearance, and scarcely surpassed by any street in any other city of the Union. The houses generally are built with neatness and taste. Many of the streets are paved and lighted. Three public squares, neatly railed in, and planted with trees, are ornaments to the city. Buffalo contains over 150 streets, and more than 2,000 dwellings.

The harbor of Buffalo is formed by the mouth of Buffalo Creek, which has twelve or fourteen feet of water for the distance of a mile from its entrance into the lake. Originally, a bar at its mouth prevented the access of most vessels from the lake. But a mole and pier, consisting of wood and stone, 1,500 feet long, has been constructed at the mouth of the creek, by the joint contributions of the United States government and of the citizens; which, by confining the channel of the creek, has so far removed the bar, that vessels requiring eight feet of water freely enter. At the end of the pier is a light-house, built of dressed limestone, twenty feet in diameter and forty-six feet high, which is not only a necessary, but an ornamental structure. The harbor is protected from all winds, and so spacious that several hundred steamboats and other lake vessels could be well accommodated in it. A ship canal 700 yards long, 70 feet wide, and 13 feet deep, has been constructed, extending from the creek, near its mouth, into

the place, where vessels can be secure from the descending ice in the spring floods, and have a better access to the city. At the breaking up of the ice in the lake in the spring, by means of the strong westerly winds which at that season prevail, the ice is generally accumulated at Buffalo harbor, and is not dissolved so as to make it accessible, until five or six weeks after the broad lake is navigable. To make the harbor more accessible in severe winds and storms, it has been proposed to construct a ship canal from the lake, across the isthmus, the Buffalo Creek, about a mile from its mouth, which would greatly improve the navigation. The harbor is generally open for navigation about the 15th of May.

We shall now proceed to lay before our readers several tabular statements, derived from the report of H. W. Rogers, Esq., Collector of the port of Buffalo, and other equally authentic sources, commencing with a statement of the value of goods, wares, and merchandise brought into the port of Buffalo by steamers and sail vessels, during the year 1846, as follows:—

IMPORTS OF BUFFALO, BY STEAMERS AND VESSELS, IN 1846.

| | Quantity. | Value. | | Quantity. | Value. |
|---|---|---|---|---|---|
| Flour.....bbls. | 1,374,529 | $5,841,748 | Coal.....tons | 4,330 | $16,873 |
| Pork and bacon... | 80,000 | 720,000 | Leather.....rolls | 9,090 | 225,000 |
| Beef..... | 20,428 | 170,568 | Ashes.....casks | 24,612 | 492,240 |
| Whiskey..... | 15,000 | 94,050 | Hides.....No. | 50,535 | 75,000 |
| Wheat.....bush. | 4,744,184 | 4,032,556 | Lard.....lbs. | 6,099,171 | 426,942 |
| Corn..... | 1,455,258 | 654,866 | Butter..... | 3,509,900 | 350,990 |
| Oats..... | 218,300 | 48,026 | Cheese..... | 3,083,000 | 184,980 |
| Barley..... | 47,530 | 23,765 | Cotton.....bales | 633 | 22,768 |
| Rye..... | 28,250 | 15,537 | Wool..... | 21,110 | 1,021,482 |
| Staves.....pieces | 10,762,500 | 226,012 | Furs & pelts..pkgs. | 2,550 | 571,842 |
| Lumber.....feet | 34,536,829 | 345,368 | Beans.....bbls. | 3,120 | 7,000 |
| Shingles.....M. | 5,150 | 7,725 | Sugar.....hhds. | 395 | 19,750 |
| Tobacco.....hhds. | 3,022 | 205,496 | Potatoes....bush. | 8,850 | 3,275 |
| Lead.....pigs | 25,960 | 72,688 | Fish.....bbls. | 6,498 | 27,000 |
| Corn meal...bbls. | 4,381 | 7,000 | Tallow.....lbs. | 808,860 | 56,620 |
| Oil..... | 781 | 19,525 | Broom-corn...bales | 8,600 | 43,000 |
| Hemp.....lbs. | 26,021 | 890,315 | Cranberries..bbls. | 2,143 | 6,429 |
| Feathers....sacks | 1,970 | 78,800 | Brooms. ...dozen | 9,665 | 19,330 |
| Wax.....bbls. | 611 | 1,850 | Copper ore...tons | 170 | 17,000 |
| Grindstones..tons | 850 | 8,500 | Merchandise.pkgs. | 54,243 | 1,800,000 |
| Iron..... ... | 2,290 | 68,700 | | | |
| | | | | | $18,415,116 |

The imports into Buffalo from foreign places, amounted, in 1845, to $121,600, and the exports to $191,959; showing a total import and export foreign trade of $313,559.

The arrivals and clearances, in 1846, were as follows:—

| | ARRIVED. | | CLEARED. | |
|---|---|---|---|---|
| | No. | Tons. | No. | Tons. |
| American vessels..... | 60 | 5,459 | 65 | 6,012 |
| British vessels..... | 427 | 90,429 | 427 | 90,429 |

Showing a total of 979 arrivals and clearances of American and British vessels, and 192,329 tons.

The enrolled and licensed tonnage of vessels in the district of Buffalo Creek, is as follows:—

Steam vessels... 11,578 Sailing vessels... 12,826 Total tonnage... 24,404

The arrival of vessels, foreign and coastwise, at the port of Buffalo, during the year 1846, was, of steamers, 1,310; propellers, 200; brigs and

schooners, 2,262; sloops and other small craft, 85; exhibiting a total of 3,857, with an aggregate of 912,957 tons.

The following table exhibits the name, class, and tonnage of all vessels enrolled and licensed in the district of Buffalo Creek, subsequent to the 3d day of June, 1846, up to and including the 1st day of January, 1847:—

| Name. | Tonnage. | Name. | Tonnage. |
|---|---|---|---|
| A. D. Patchin.....steamer | 873 78 | Watts Sherman.....schooner | 198 51 |
| Patrick Henry .....brig | 316 07 | Aurora Borealis..... | 94 40 |
| Lucy A. Blossom..... | 258 09 | E. Whittlesey ..... | 49 67 |
| Ansell R. Cobb..... | 226 07 | P. S. Marsh.....canal-boat | 87 13 |
| Frances Mills..... | 116 24 | Oregon..... ..... | 67 36 |
| Outward Bound .....schooner | 260 20 | Seba..... | 57 53 |
| Denmark ..... | 236 63 | Cuba..... | 58 47 |
| Westchester..... | 207 61 | Motion..... | 50 93 |
| Congress..... | 206 32 | | |
| Total..... | | | 3,365 36 |

RECAPITULATION.

| | |
|---|---|
| One steamer..... | 873 78 |
| Four brigs..... | 916 47 |
| Seven schooners..... | 1,253 49 |
| Five canal-boats..... | 321 52 |
| Total..... | 3,365 36 |

During the year ending 30th of June, 1846, there were built in the district of Buffalo Creek, two steamers, with three propellers and two schooners, with an aggregate of 3,341 tons, as follows:—

| Name. | Tonnage. | Name. | Tonnage. |
|---|---|---|---|
| Niagara.....steamer | 1,084 00 | Pocahontas.....propeller | 426 64 |
| Louisiana..... ..... | 777 53 | G. T. Williams.....schooner | 167 04 |
| California .....propeller | 420 26 | Lapwing..... | 5 68 |
| St. Joseph's ..... | 460 16 | | |
| | | | 3,341 39 |

The goods, wares, and merchandise exported coastwise from Buffalo, during the year 1846, amounted to $30,574,000; but about $12,000,000 short of the entire exports of the United States to England, during the same year. The exports of Buffalo are thus classified in the official statement of the collector of that port:—

EXPORTS COASTWISE OF THE PORT OF BUFFALO, IN 1845.

| | |
|---|---|
| Merchandise received at this port, via the Erie Canal and otherwise, and re-shipped for the West..... | $18,500,000 |
| Barrels salt..... | 100,000 |
| Domestic spirits..... | 10,000 |
| Manufactures of iron, tin, copper, &c..... | 3,208,000 |
| Leather, and manufactures of..... | 1,106,000 |
| Household furniture and goods..... ..... | 2,450,000 |
| Other manufactures..... | 5,200,000 |
| Total..... | $30,574,000 |

The collector of the port of Buffalo estimates the number of passengers arriving at and departing from Buffalo by the lakes, during the season of navigation, in 1846, at 250,000.

The annexed table shows the entire movement of property through Buffalo, on the Erie Canal, for the years 1845 and 1846, exhibiting at a glance the quantity of products and merchandise shipped from and received at Buffalo on the Erie Canal, with the total aggregate valuation:—

| | SHIPPED. | | RECEIVED. | |
|---|---|---|---|---|
| Products of the forest— | 1845. | 1846. | 1845. | 1846. |
| Furs and pelt .....lbs. | 545,097 | 571,342 | 14,862 | 30,527 |
| Boards and scantling ....feet | 19,932,069 | 19,027,030 | 3,140,959 | 3,119,009 |
| Shingles.....M. | 554 | 401 | ..... | 15 |
| Timber.....c. feet | 11,445 | 10,714 | ..... | 58,186 |
| Staves .....lbs. | 89,174,110 | 73,135,932 | ..... | 16,000 |
| Wood ..... .....cords | 980 | 729 | 13,025 | 16,655 |
| Ashes.....bbls. | 38,417 | 24,639 | 4 | ..... |
| Products of agriculture— | | | | |
| Pork.....bbls. | 28,235 | 61,492 | 43 | 20 |
| Beef..... | 34,084 | 28,503 | ..... | 9 |
| Bacon.....lbs. | 1,218,811 | 2,220,673 | ..... | 2,177 |
| Cheese..... | 2,759,923 | 4,973,165 | 7,258 | 3,142 |
| Butter..... | 3,397,690 | 4,658,427 | 7,565 | 10,254 |
| Lard..... | 2,852,441 | 5,950,541 | 200 | ..... |
| Wool..... | 3,441,317 | 4,085,929 | 14,913 | 4,991 |
| Hides..... | 769,861 | 788,956 | 319,272 | 360,409 |
| Flour .....bbls. | 721,891 | 1,291,233 | 3,310 | 7,222 |
| Wheat.....bush. | 1,354,996 | 3,613,569 | 271 | 376 |
| Rye..... | 903 | 1,895 | 3 | 4 |
| Corn..... | 33,094 | 1,119,689 | ..... | 434 |
| Barley..... ..... | ..... | 3,683 | 11,013 | 6,253 |
| Other grain..... | 9,040 | 185,896 | 10,564 | ..... |
| Bran and ship-stuffs..... | 3,266 | 2,550 | 45,354 | 8,588 |
| Peas and beans..... | 5,587 | 6,265 | 367 | 41 |
| Potatoes ..... | 3,445 | 771 | 1,706 | 3,206 |
| Dried fruit.....lbs. | 7,837 | 290,492 | 807,599 | 268,395 |
| Cotton..... | ..... | 252,983 | 50,914 | 123,456 |
| Tobacco..... | 608,849 | 2,511,380 | 120,364 | 152,090 |
| Clover and grass-seeds ..... | 2,487,336 | 1,069,423 | 11,558 | 50,473 |
| Flax-seed..... | 184,563 | 971,796 | ..... | 190 |
| Hops. ..... | 4,436 | 2,118 | 35,085 | 143,718 |
| Domestic manufactures— | | | | |
| Domestic spirits.....galls. | 272,336 | 323,923 | 17,840 | 5,800 |
| Leather..... ..lbs. | 1,090,548 | 1,137,356 | 2,081 | ..... |
| Furniture..... | 1,254,764 | 1,177,273 | 9,491,372 | 9,649,943 |
| Bar and pig-lead ..... | 345,387 | 516,264 | ..... | .. ... |
| Pig-iron..... | 161,518 | 35,594 | 110,886 | ..... |
| Iron-ware ..... | 33,779 | 87,802 | 2,813,046 | 2,765,040 |
| Domestic woollens..... | 23,143 | 5,052 | ..... | ..... |
| Domestic cottons ..... | 1,218 | 11,198 | ..... | ..... |
| Salt.....bush. | ..... | ..... | 582,694 | 566,572 |
| Merchandise .....lbs. | 295,125 | 176,777 | 100,893,428 | 116,148,045 |
| Other articles— | | | | |
| Stone, lime, and clay.....lbs. | 11,804,950 | 3,973,966 | 37,184,457 | 28,314,886 |
| Gypsum ..... | 1,594 | 6,410 | 493,179 | 260,805 |
| Mineral coal..... | 1,954,850 | 3,274,162 | 5,222,991 | 6,086,606 |
| Sundries ..... | 6,844,395 | 10,705,597 | 6,576,203 | 2,932,004 |

| Of the tonnage cleared, | 1845. | 1846. | Of the tonnage left, | 1845. | 1846. |
|---|---|---|---|---|---|
| The forest furnished.... | 91,678 | 77,022 | The forest furnished.... | 43,466 | 53,021 |
| Agriculture..... | 138,733 | 310,848 | Agriculture..... | 2,008 | 1,691 |
| Domestic manufactures. | 2,817 | 3,107 | Domestic manufactures. | 23,779 | 22,109 |
| Merchandise..... | 148 | 88 | Merchandise..... | 50,447 | 58,074 |
| Other articles.... .... | 10,302 | 8,980 | Other articles..... | 24,718 | 18,821 |
| | 243,673 | 400,045 | | 144,418 | 153,761 |

Total tonnage, 1845, 348,086; 1846, 553,761.

| | 1845. | 1846. |
|---|---|---|
| Valuation, property cleared..... | $9,502,806 | $15,014,816 |
| Valuation, property left ..... | 16,888,382 | 23,199,665 |
| Total..... | $26,390,688 | $38,214,025 |

# JOURNAL OF MERCANTILE LAW.

EQUITY—COSTS—JURISDICTION OF THE UNITED STATES COURTS—PRACTICE—FRAUD —AGENCY—CONTRACTS.

In the Circuit Court of the United States, Massachusetts District, April Term, 1847, at Boston; Samuel J. Foster, *et al.*, *v.* John H. Swasey.

This was a suit in equity. The bill stated that, on or about the fifth day of August, in the year 1842, the said John H. Swasey became possessed of a certain promissory note, dated Brighton, July 23d, 1842, for the sum of nine hundred and ten dollars, drawn by M. M. Rice, payable to Edmund Rice, or order, at the Suffolk Bank in Boston, in four months, and by the said Edmund endorsed in blank. That on or about the fifth day of August, in the year 1842, the said Swasey sent a copy of the said note to Bangor, to one Timothy George, accompanied by the following letter:—*Timothy George*, Esq. Dear Sir: I have the note in my pocket, the copy of which is above. I want you to purchase for me a cargo of boards of the best quality, and pay for them with the above note. You have a plenty of folks in Bangor who well know the old man Rice, and if they do will be glad to sell boards and take his note. This note is young Rice's promise, with his father's endorsement. Old Veazie, I think, would be glad to sell boards for it. Bragg & St. Clair, would be good references, I think, as he knows them well enough to sell boards, and I think the note good. Edward D. Peters has said, the note he thought good, and I well know he has trusted on the strength of the old man's name very lately. Any way, I have got the note in the way of trade, and will sell it for boards, as I can get the money sooner than wait for the note to fall due. If it requires three or four hundred dollars to put with it, do so, and send me a bill of lading, and draw as long as you can, if it is not more than ten days. I want you to attend to this immediately, as I can sell the boards now better than late in the season. If you can buy the boards, buy them, and send for the note, and I will forward the same. You will please keep this to yourself. Let no one know who wants the boards. If you do this business for me, I will pay you 5 per cent for buying. George, be on hand, and if you write, write yourself: don't get any one to do it for you; although it is no particular matter. I shall expect to hear from you very soon. Write to me. Yours in haste, *John H. Swasey.* Boston, August 5th, 1842."

That immediately after the receipt of the said letter, the said George applied to the plaintiffs, (who were co-partners in the lumber business, in the said Bangor,) for the purchase of a cargo of lumber; that he described the said note to the plaintiffs, and represented to them that the parties to it were good, and able to pay it, and proposed that the plaintiffs should take the note as so much towards the payment of the lumber; that the plaintiffs, fully believing from the representations of George, that the note was good, and would be promptly paid by the parties to the said note, except what they obtained from George, agreed to sell to him a cargo of lumber, and accept the note as part payment thereof; and thereupon they delivered to George a cargo of lumber, and George wrote to the said Swasey, and obtained the said note, and delivered it to them; that George then shipped the lumber to Swasey, and gave a draft on Swasey for the balance due for the lumber; that Swasey received the said lumber, and sold it, and appropriated the proceeds to his own use; that the said George did not exhibit the said letter of the said Swasey to the plaintiffs, nor did he represent to them that he was buying the lumber for Swasey; nor did they then know that Swasey was in any way interested in the said purchase. That the said note, at its maturity, was regularly protested for non-payment, and due notice thereof given to the endorser, and is still unpaid; that the note was drawn and endorsed without any consideration being paid therefor, either by Swasey or any other person, and that Swasey paid no consideration for it; and that the drawer and endorser of the note were, at the time of its date, and ever since had been, totally worthless, and unable to pay the same; and that the said Swasey, at the time he sent a copy of the note to George, well knew the same to be worthless, and that neither the drawer nor en-

dorser of the note was possessed of property wherewith to pay the same, and that it would not be paid. And the bill charged that Swasey, by thus selling the note to the plaintiffs, committed a gross fraud on them, and that he ought, in equity, to pay to the plaintiffs the whole amount of the said note, with interest and damages thereon.

The bill prayed for discovery and relief. The answer denied the allegations of fraud. There was much conflicting evidence.

WOODBURY, J., in delivering judgment in favor of the plaintiffs, decided the following points: 1. A complainant in chancery, residing in another State, but in the same circuit, cannot be required to furnish security for costs, except at the first term. 2. When redress is sought in chancery, it cannot be granted in the courts of the United States, however it may be in England or in the States, if the redress is in every way as full and appropriate at law. 3. The objection may be taken on demurrer, when it appears on the face of the bill; but is not too late at the hearing, if, after an answer, no disclosure is obtained. 4. An averment of fraud in the sale of a promissory note, and a request for a discovery of facts accompanying the sale, furnish sufficient ground for jurisdiction in chancery. And the proceedings once properly begun, these will be continued, when important facts are thus disclosed, and the subject in controversy is one proper for chancery, as well as a court of law. 5. An expression of a belief by the vendor of the note, that the maker is responsible, is equivalent to an assertion that he is so, if meant to be so understood, and if made with the knowledge that he was not responsible. 6. When the vendor receives valuable property for such note, and no payment is made for part of the price except by the note, the owner of the property is entitled to recover that part, or damages equal to it, if the signer of the note was worthless, and so known to be by the vendor of the note. 7. A special agent has no power to go beyond what is confided to him in making a trade, so as to bind his principal by any contract he thus makes, but is liable for it himself. 8. Yet a contract made by such an agent by means of false and fraudulent assertions is void, and may be rescinded, or damages given, in a suit against the principal, if the latter received the benefits or proceeds of it. 9. *Quære*, if notes are sold which are worthless, and the purchaser does not specially agree to take the risk, whether he may not recover the consideration paid for them.

A decree was accordingly entered, that the defendant should pay the complainants the amount of the note and interest, and that, upon such payment, the note should be delivered up to the defendant.*

COLLISION—STEAMBOAT NEPTUNE AND SCHOONER IOLA.

In the United States District Court, March 3d, 1847, before Judge Betts. Zebulon A. Paine and others, *vs.* the steamboat Neptune.

The schooner Iola was run into by the steamboat Neptune, and immediately sunk, carrying down with her two persons. The schooner was nearly close-hauled upon the wind. The Neptune was leeward, and veered up with intent to pass the schooner to windward and across her bow, when distant a quarter to seven-eighths of a mile. The combined speed of the vessels was sixteen or seventeen miles the hour. The night was not so dark but that the schooner could have been discovered, in time to avoid her, without the necessity of her showing a light, had a competent look-out been kept on board the steamer. The course of the schooner was not changed. It was not made to appear for the Neptune, that a look-out was stationed, or any kept, other than in the pilot-house, where the windows were down and the glass intervened. If, as was set up for the Neptune, the atmosphere was so cloudy and thick that a vessel ahead would not be seen without lights, then it was wrong to continue running the Neptune at her full speed. It was considered by the court, that the persons navigating the steamer were chargeable with neglect and want of due precaution, in attempting to cross the bows of the schooner and go to windward of her, and that such improper movement of the steamer was the occasion of the collision and damages that ensued. Decree for the libellants.

* Law Reporter for May, 1847.

# COMMERCIAL CHRONICLE AND REVIEW.

BANK OF ENGLAND AND ITS OPERATIONS—BANK OF FRANCE—DRAIN OF BULLION TO THE U. S.—RUSSIAN GOLD MINES—PRICES OF GRAIN IN ENGLAND IN THREE YEARS—GRAIN SOLD IN THE UNITED KINGDOM IN FOURTEEN DAYS—PROGRESS OF FREIGHTS—COTTON CROP—VALUE OF BRITISH EXPORTS—MEANS AND LIABILITIES OF THE NEW YORK BANKS, ETC., ETC.

THE financial affairs of the world are rapidly approaching a crisis; but one in relation to which the United States stand in a position different from any that they have occupied at periods of former revulsions. In 1825, '30, '37, '39, the United States had credits in London, which depended upon the health of the money-market there; and which, on the occurrence of any considerable export of the precious metals from London, were always the first to be sacrificed to the safety of the Bank. Whenever that institution was disposed to make money plenty, either to suit its own views or those of the government, in procuring a loan, as in 1832, or in converting stocks from a higher to a lower denomination, paper connected with the American trade, and at long dates were freely taken; pouring into that channel of trade facilities which did not fail to stimulate an animated business throughout the United States, hanging on the London market. At the first appearance of the revulsion which inevitably followed such a movement, American interests were sacrificed, and it became the interest of most commercial classes that specie should not leave London, even to come here; because, by leaving the centre of credit, the fabric was endangered. The events of the last few years have, however, tended to build up a business here, independent of the favors of the English bank, and its prosperity or distress is now, comparatively speaking, really of but little importance to American interests; but the memory of former disasters, originating in London, hangs gloomily over the market. The decline in the bullion of the Bank of England has, for some months, continued very severe, and amounts to more than £5.000,000 in the present year, under similar circumstances. In continuation of a table in our April number, we insert the following leading features:—

BANK OF ENGLAND.

| | Securities. | | Deposits. | | Net circu- | Notes on | | B'k rate |
|---|---|---|---|---|---|---|---|---|
| Periods. | Public. | Private. | Public. | Private. | lation. | hand. | Bullion. | of int'st. |
| Dec'r 5.... | £12,867,417 | 13,753,212 | 8,612,488 | 8,308,528 | 19,866,805 | 8,402,800 | 15,082,873 | 3 p. ct. |
| Jan'y 2.... | 12,826,362 | 15,071,820 | 9,990,624 | 7,908,959 | 20,081,185 | 8,227,085 | 14,951,572 | 3 " |
| " 9.... | 12,757,326 | 14,464,948 | 5,860,631 | 9,784,767 | 20,816,845 | 6,715,255 | 14,301,022 | 3 " |
| " 16.... | 12,757,326 | 14,450,781 | 5,034,169 | 10,339,726 | 20,679,870 | 6,545,965 | 13,984,681 | 3½ " |
| " 23.... | 12,757,326 | 14,489,657 | 4,668,489 | 10,335,835 | 20,608,090 | 6,167,170 | 13,442,680 | 4 " |
| Mar'h 6.... | 11,990,079 | 16,905,705 | 6,571,731 | 9,288,681 | 19,279,145 | 5,714,740 | 11,595,535 | 4 " |
| " 13.... | 11,990,079 | 17,358,712 | 6,717,162 | 9,536,137 | 19,282,200 | 5,554,140 | 11,449,461 | 4 " |
| " 20.... | 11,990,079 | 17,650,874 | 6,471,623 | 9,962,436 | 19,069,465 | 5,418,475 | 11,231,630 | 4 " |
| " 27.... | 11,990,079 | 17,824,355 | 6,616,287 | 9,403,132 | 19,444,426 | 4,876,015 | 11,015,583 | 4 " |
| April 3.... | 11,990,079 | 18,647,166 | 6,001,947 | 9,502,081 | 19,828,678 | 3,760,757 | 10,246,410 | 4 " |
| " 10.... | 13,574,444 | 18,136,377 | 4,984,375 | 11,2:7,744 | 20,404,431 | 2,832,915 | 9,867,053 | 5 " |
| " 17.... | 11,677,819 | 17,111,011 | 3,011,682 | 10,004,699 | 20,262,785 | 2,558,315 | 9,329,841 | 5 " |
| " 24.... | 11,117,319 | 16,079,627 | 2,634,518 | 9,125,409 | 19,830,145 | 2,718,995 | 9,125,409 | 5 " |

This table embraces a series of singular events. In the latter part of 1846, money in the interior of Germany was at a high rate of interest, while in Paris it was to be had at 4 per cent, and in London at 3 per cent—circumstances that tended to draw large sums from Paris, to be re-loaned in the German cities at a profit. In addition to this, large sums were required of France to pay for grain to feed her people, and the two causes operated powerfully on the Bank of France —reducing her bullion from 220,000,000 francs to less than 70,000,000 francs, in

the first week in January, constraining it to raise its rate of interest to 5 per cent, and to borrow £1,000,000 in silver of the Bank of England. The latter institution, finding its specie slipping away, under the large imports of produce from the United States, has gradually raised its rate of interest, with the view to check the drain, and it issued the following notice, dated April 8, 1847 :—

"The *minimum* rate of interest on bills discounted at the Bank of England, not having more than 95 days to run, is £5 per cent."

This advance in the value of money in London necessitates a further advance in Paris; but money in Germany and the North of Europe is reported cheaper—a circumstance which, to some extent may turn the current of specie.

The flow of the precious metals to the North, in payment of corn, and the large produce of the Russian mines, which have delivered $20,000,000 of gold in the last year, as will be seen by a table in another place, caused an unwonted accumulation of the metals at the treasury in St. Petersburgh, and influenced the Emperor to purchase of the Bank of France, 50,000,000 francs of fresh government stock, which amount to some $8,000,000, at the market rate. The transfer of the stock from Paris to St. Petersburgh, placed at that city credits in favor of the Bank of France, and that institution, it would appear, authorized its agents, Baring Brothers, to draw for it, and reimburse the Bank of England for the £800,000 borrowed of it in January, so that the operation is in fact a transfer of coin from St. Petersburgh to London. The havy drain of bullion to the United States continued down to the latest date, and reached $25,000,000 since December. The operation of the bank, under this state of affairs, is eccentric, and arises from the fact that the position of the institution in relation to the currency, is very different, under the new charter, from what it was under the old one. This fact seems to be overlooked both here and in England. The functions of the bank as a "currency furnisher" have ceased; and it stands in relation to the currency precisely as do the other banking firms. The amount of notes held by the banking department, constitutes all its means to meet its liabilities. It cannot procure notes without specie, any more than any other concern, from the issue department. When its reserve runs low, the only means it has of replenishing its coffers, are,—1st. To sell government securities in the open market; 2d. To cease discounting, and allow the payments on matured notes to accumulate; 3d. Should it receive deposits of specie, to turn it over to the issue department, in exchange for notes; or 4th, to await the collection of the government taxes, which are paid into the bank in notes. It is very evident that in a restricted market and falling prices, the institution cannot sell securities to any extent, without creating panic and incurring loss. Nevertheless, it was asserted that the Commissioner of the Savings Bank had placed with the bank £2,000,000 of stock, to sell in aid of its advances to the government on deficiency bills. When exchanges are against England, it is not very likely to receive deposits of specie; and the receipt of bills for government dues is a slow process. Hence, the only alternative is to stop discounting, in which case the rapid maturity of its short and active loans speedily places it in funds. This process effectually and promptly diminishes the circulation.

The actual amount of circulation has not materially varied, remaining at about £20,000,000; but the reserve of notes, partly under the payment of the April dividends, has sunk to a point lower than since the new charter came into effect; and it is not improbable that the amount will be exhausted before the April dividends are completed. As compared with last year, the operation is as follows:—

| | 1846. | | | 1847. | | |
|---|---|---|---|---|---|---|
| | Public securities. | Deposits. | Notes on hand. | Public securities. | Deposits. | Notes on hand. |
| April 3, | 13,136,440 | 7,047,026 | 7,316,415 | 11,990,079 | 6,001,047 | 3,760,757 |
| 10, | 14,437,065 | 4,210,976 | 6,728,120 | 13,574,444 | 6,984,375 | 2,532,905 |
| 18, | 13,957,865 | 3,197,029 | 6,515,990 | 11,677,819 | 3,011,032 | 2,558,315 |
| 25, | 13,528,065 | 2,698,253 | 6,488,140 | 11,117,319 | 2,634,518 | 2,718,995 |
| 31, | 13,302,065 | 2,578,451 | 6,408,470 | | | |

In the month of April, last year, the public deposits did not reach their lowest point until the 1st of May, when they were £2.500,000 less than they were this year, on the 10th April. Should they diminish to the same extent this year, the reserve will be exhausted before the collections of the government begin to replace the notes in the bank. In the first week of April, last year, the public deposits diminished £2,800,000, and this year but £1,100,000; the difference includes the payment into the bank of the second instalment of the £8.000,000 loan. It does not appear that the bank stinted its loans in consequence of the rise in interest, until the last week, when they were less than the previous one, but still higher than in the week ending March 27. Any material demand upon the bank for deposits, either public or private, would exhaust it of money, and leave it like any other concern, compelled to *procure* money and not *make* it, as formerly, to meet its engagements. To do this, it must stop discounting, and sell public securities, and gold will be procured by the public only by returning notes on the issue department. In all this operation of refusing certain discounts, and raising the rate of money for others, in the vain attempt to stop the flow of specie to the United States, there appears to be a good deal of quackery. The occasion of this demand for specie is, that England has been compelled to buy food from the United States far above the usual quantity; and for this food specie must be paid. The food is not purchased on credit, nor because money is cheap, but because it must be had. When, as in former years, large quantities of goods were purchased on long credits for United States account, the refusal of those credits stopped the export, but it cannot stop the import of food for cash sales. The only stop that will be put to the drain on United States account, will be by a fall in prices of grain in England, and it is not apparent that those prices are in any degree sustained by borrowed capital, or a holding of stock through bank facilities. On the other hand, the wants are becoming more urgent, notwithstanding a temporary decline in rates. The following is a table of prices for the first four months of three years:—

PRICES OF GRAIN IN ENGLAND.

| | 1845. | | | | | | 1846. | | | | | | 1847. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wheat. | | Barley. | | Oats. | | Wheat. | | Barley. | | Oats. | | Wheat. | | Barley. | | Oats. | |
| | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. |
| Jan. 2 | 45 | 8 | 34 | 2 | 21 | 10 | 56 | 4 | 31 | 11 | 21 | 7 | 64 | 4 | 44 | 8 | 27 | 2 |
| 9 | 45 | 10 | 34 | 5 | 21 | 7 | 56 | 8 | 31 | 10 | 21 | 9 | 66 | 10 | 46 | 15 | 27 | 10 |
| 16 | 45 | 7 | 34 | 7 | 21 | 8 | 56 | 2 | 31 | 11 | 22 | 3 | 70 | 3 | 50 | 0 | 29 | 6 |
| 23 | 45 | 7 | 34 | 2 | 21 | 3 | 55 | 7 | 31 | 8 | 21 | 10 | 73 | 3 | 54 | 6 | 31 | 2 |
| Feb. 1 | 45 | 5 | 33 | 10 | 21 | 6 | 54 | 8 | 31 | 3 | 21 | 10 | 74 | 11 | 54 | 1 | 32 | 5 |
| 6 | 45 | 5 | 33 | 0 | 21 | 6 | 54 | 3 | 30 | 1 | 21 | 7 | 73 | 10 | 53 | 5 | 33 | 0 |
| 13 | 45 | 4 | 33 | 3 | 21 | 7 | 54 | 9 | 30 | 6 | 21 | 9 | 71 | 7 | 51 | 10 | 32 | 8 |
| 20 | 45 | 2 | 32 | 4 | 21 | 7 | 55 | 0 | 29 | 11 | 21 | 6 | 71 | 7 | 53 | 6 | 31 | 11 |
| 27 | 45 | 0 | 32 | 3 | 21 | 7 | 54 | 6 | 29 | 7 | 21 | 5 | 74 | 7 | 55 | 0 | 32 | 4 |
| Mar. 6 | 45 | 0 | 32 | 2 | 21 | 7 | 54 | 10 | 29 | 3 | 21 | 10 | 74 | 4 | 54 | 11 | 32 | 3 |
| 13 | 45 | 1 | 32 | 2 | 21 | 4 | 54 | 3 | 29 | 4 | 21 | 9 | 74 | 2 | 52 | 10 | 31 | 2 |
| 20 | 45 | 5 | 32 | 4 | 21 | 8 | 55 | 1 | 29 | 10 | 21 | 2 | 75 | 10 | 51 | 11 | 31 | 3 |
| 27 | 45 | 10 | 32 | 4 | 21 | 5 | 55 | 5 | 30 | 2 | 22 | 2 | 77 | 0 | 51 | 11 | 31 | 6 |
| Apr. 3 | 46 | 5 | 32 | 5 | 21 | 4 | 55 | 1 | 30 | 1 | 22 | 0 | 77 | 1 | 51 | 3 | 31 | 8 |
| 10 | 46 | 3 | 32 | | 20 | 9 | 55 | 1 | 30 | 9 | 22 | 0 | 74 | 5 | 49 | 8 | 32 | 7 |

This range of prices is very high, and was, a few weeks since, supposed to be based, to some extent, on a withholding of stocks by the farmers for higher prices. The features of the market, however, do not sustain that view of the matter; on the other hand, they indicate that the stocks in farmer's hands are nearly exhausted. The quantities reported as sold, during the two weeks ending April 17th, by the corn inspectors, in the 250 towns which regulate the average, were as follows:—

QUANTITIES OF GRAIN OFFICIALLY REPORTED AS SOLD IN THE UNITED KINGDOM IN FOURTEEN DAYS, ENDING APRIL 17TH.

| | Wheat. | | Barley. | | Oats. | | Rye. | | Beans. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Qrs. | s. | Qrs. | s. | Qrs. | s. | Qrs. | s. | Qrs. | s. |
| 1846... | 224,908 | 55 | 139,851 | 30 | 103,081 | 22 | 500 | 34 | 23,421 | 35 |
| 1847... | 140,797 | 75 | 51,248 | 52 | 32,760 | 32 | 426 | 56 | 10,084 | 52 |
| Decrease | 84,111 | .. | 88,603 | .. | 71,321 | .. | 74 | .. | 13,337 | .. |
| Increase. | ..... | 20 | ..... | 22 | ..... | 10 | .. | 22 | ..... | 17 |

An advance of 40 to 60 per cent in prices, failed to elicit any considerable quantities; and as the spring planting was mostly over, and farmers at leisure to attend to sales, the small supplies may be taken as evidence that there remained but little to sell. Prices gave way, for a few weeks, under very large arrivals from the United States, and the prevalence of fine weather for spring planting. Those advices, in addition to high freights, checked exports from the United States; and as the spring advanced, and numerous arrivals of British vessels from the Northern ports of Europe caused a fall in freights, the stocks produce of in the Atlantic cities became exhausted, and shipments could not be made even at the low freights. The Erie Canal was unfortunately some three weeks later in its operations than usual, by which means the export trade suffered severely. That England will want vast supplies, from this time up to the new harvest, is pretty evident. The stocks in the United Kingdom were much lighter this year than last, and no doubts can be entertained but the wants will be as much for the first six months of 1847, as for the same period of 1846, when the quantity entered for consumption was as follows:—

| | | | |
|---|---|---|---|
| Wheat.....qrs. | 1,852,758 | Flour.....cwts. | 2,810,202 |
| Indian corn..... | 425,227 | Corn meal..... | 93,985 |
| All other grain..... | 765,520 | Oat-meal..... | 1,053 |
| Total ..... | 3,043,505 | Total ..... | 2,905,240 |

This is a quantity equal to 1,500,000 barrels of flour, and 27,000,000 bushels of grain. Demands for an equal quantity this year, can be met only from the United States, even if Europe should require nothing from the United States. In our article for December, we entered somewhat at length into the prospects of the trade, and subsequent events have confirmed the view then taken. It has so happened, that down to the close of March the supply of shipping was altogether inadequate to the transportation of grain, and exorbitant freights were obtained These were heightened, to some extent, by speculation in freights. In anticipation of the continued high rates, many vessels upon stocks were chartered as high as 6s. to 7s. per barrel for flour; as the spring progressed, vessels from Europe arrived in great numbers, and the stocks of produce fell very low, by which means freights declined to 2s. 9d., and even lower, for flour. Immense losses were thus incurred by speculators in freights. The canal being now in full operation,

and produce coming forward freely, freights will improve, and exchanges probably fall.

The position of the cotton crop is singular, and may be fraught with the gravest results to British commerce. It has hitherto been the case that England has taken the largest portion of the United States crop, which, for several years, including the present, down to April 17th, has been distributed as follows :—

| | 1842. | 1843. | 1844. | 1845. | 1846. | 8 months. 1847. |
|---|---|---|---|---|---|---|
| U. States use.... | 267,850 | 325,129 | 346,744 | 389,006 | 422,597 | 301,933 |
| England..... | 935,631 | 1,469,711 | 1,202,498 | 1,439,806 | 1,102,369 | 590,376 |
| Europe, &c..... | 529,618 | 540,426 | 426,992 | 644,450 | 564,423 | 308,067 |
| Crop..... | 1,688,574 | 2,378,875 | 2,030,409 | 2,394,503 | 2,100,537 | 1,640,550 |

England has taken always 60 per cent of the crop, and on the manufacture, and re-export of that article hangs her export trade ; that is to say, cotton, to her total exports, has held the following proportion :—

VALUE OF BRITISH EXPORTS.

| | Cotton goods. | All other manufactures. | Total exports. |
|---|---|---|---|
| 1844..... | £25,805,348 | £24,836,958 | £50,642,306 |
| 1845..... | 26,119,327 | 27,179,699 | 53,298,026 |
| 1846..... | 25,600,693 | 25,679,042 | 51,279,735 |

Should England be deprived of the raw material by any means, her external trade would evidently be so diminished as to jeopardize her whole finances. During the present year, she has received only half her supply, and there remains probably of the crop 700,000 bales to be distributed. To reach the consumption of last year, the United States will want 120,000 bales, Europe 264,000 bales leaving but about 300,000 bales for England, which she must buy at a very enhanced price ; and, should working short time be adopted to any considerable extent, her export trade, or the means of paying for her large import of breadstuffs, will be very considerably diminished. A decline of one-third in the raw material involves a falling off of £8,000,000 in export ; that is to say, if she gets $16,000,000 less cotton, she sells $40,000,000 less cloth, or she disposes of $24,000,000 less labor. It is probable that the prices will rise to some extent, in consequence o this diminished supply, but as the United States have not depended to any considerable extent upon English cotton goods, the prices here may not be affected directly by the English short supply, and a little more competition here may not only effectually exclude English cottons from this market, but supplant them in third markets. This operation is gradually progressing, both here and on the continent of Europe, much hastened by the present circumstances of the crop. A short crop of cotton affects England more than any other country, because on her has fallen the burden of disposing of the surplus in prolific years, while the countries of Europe and the United States have annually approximated the point of full supply for their own wants and a surplus for export. Two short crop years would shake the English finances to their centre. Thus far the spinners of the United States have taken less by 42,000 bales, than in the same period of 1846. They have probably been holding off in consequence of the high prices. The progress of events is gradually increasing the direct communication between the United States and the continent of Europe. The new line of French steamers connecting with New York must give an impulse to the trade with that country, more particularly that the wants of France in respect of breadstuffs are such

as have compelled a more liberal line of commercial policy, and those articles will be free of duty, probably, until August, 1848. The ratification of a new treaty with Hanover, is also calculated to add greatly to the commercial intercourse between the United States and the interior of Germany, as is also the beautiful new line of steamers of the Ocean Steam Navigation Company, the first of which, the Washington, built under the supervision of E. Mills, Esq., by J. Westervelt, Esq., of New York, and the machinery by Mr. Stillman, of the Novelty Works, sails, June 1st, for Bremen, under command of the well-known and popular Captain Hewitt. This is probably the finest steamer that ever crossed the Atlantic from our shores, and fully sustains the unrivalled reputation of American ship-builders, while the machinery is such as to win a like reputation for our skill in that branch of the arts. This noble steamer conveys the United States mail for Bremen, and will carry 500 tons of freight, besides numbers of passengers.

The new treaty with Hanover, placing American vessels upon the same footing as those of that kingdom, is of great importance to the future trade with Germany. By it, the restrictions which have been laid by Hanover, for centuries, on the commerce passing the Elbe and Weser to the interior of Germany, have measurably been removed, and the commerce of the United States with the continent is made more direct. As the cotton manufacture of Germany becomes more extended, the export of the raw material will be made direct to Germany, instead of, as now, to England.

The prosperous state of the external trade of the United States, has favorably affected the banking interest, notwithstanding the operation of the Sub-Treasury, with its specie provisions. The following is a comparative table of the immediate means and liabilities of the New York banks:—

IMMEDIATE MEANS AND LIABILITIES OF THE NEW YORK BANKS.

IMMEDIATE LIABILITIES.

| | 1845. | | 1846. | | 1847. | |
|---|---|---|---|---|---|---|
| | February. Dollars. | May. Dollars. | February. Dollars. | May. Dollars. | February. Dollars. | May. Dollars. |
| Deposits ..... | 25,976,246 | 28,425,967 | 29,654,401 | 30,868,337 | 31,330,595 | 35,799,954 |
| Circulation ... | 16,126,894 | 17,069,069 | 18,407,733 | 18,409,977 | 18,366,016 | 21,297,633 |
| Due banks ... | 3,816,252 | 5,131,519 | 4,662,073 | 2,973,658 | 3,995,411 | 6,945,466 |
| Canal fund.... | 1,607,572 | 1,257,358 | 896,843 | 646,328 | 911,680 | 534,822 |
| United States. | 700,064 | 672,130 | 2,580,711 | 3,493,622 | 342,766 | 178,517 |
| Total..... | 48,226,528 | 52,556,043 | 56,201,761 | 56,391,962 | 55,446,468 | 64,756,392 |

MEANS.

| | Dollars. | Dollars. | Dollars. | Dollars. | Dollars. | Dollars. |
|---|---|---|---|---|---|---|
| Specie ..... | 6,893,236 | 8,118,324 | 8,361,383 | 8,171,624 | 9,191,254 | 11,312,171 |
| Cash items.... | 4,839,886 | 6,280,852 | 6,370,302 | 5,839,700 | 7,552,068 | 8,793,286 |
| Total .... | 11,733,122 | 14,299,176 | 14,731,685 | 14,011,324 | 16,743,322 | 20,105,457 |
| Excess liability | 36,493,406 | 38,256,867 | 41,470,071 | 42,380,678 | 38,703,146 | 44,650,935 |
| Loans..... | 66,883,098 | 74,616,060 | 71,897,580 | 72,591,431 | 69,806,358 | 76,688,553 |

These figures give a higher state of liabilities than ever before. The amount of specie has increased over $2,100,000, and the amount of individual deposits over $4,000,000, and the nett circulation is larger than ever before. It is to be remarked, that while the immediate liabilities are $8,500,000 higher than last year, at the same date, there is in the table $3,315,105 less, due the federal government. Consequently there is due the public, at least $11,000,000 more than

in May, 1846; but many of the banks include the amount due the federal Treasury, in the general deposit account. The amount actually due the federal government, May, 1846, was $6,068,545; so that the amount due the public, is $14,000,000 more than in May, 1846. This being the case, the banks have increased their loans but $4,100,000; that is to say, they have borrowed of the public $14,000,000, and loaned it but $4,000,000. The specie is higher than at any time before, with the exception of August, 1843, after very large imports of specie; but, including the amount in the New York Treasury, the sum is greater than ever in the city.

The advices which reached here by the Hibernia, to May 4, brought a continuation of the alarm in England in relation to the drain of bullion. The railway "calls" for January, February, March, April, and May, were £16,000,000; and the large expenditures going on for those works were undoubtedly the real cause of the existing difficulties. They had, during 1846, operated, not only to stimulate largely the consumption of foreign articles of food, but had, by taking people from their usual employment, diminished the production, to the usual extent, of articles of export; a necessary consequence of which would be adverse exchanges independently of the import of corn. The enhanced consumption was going on to increase, and it was evident that the wants of England up to harvest would be as large, at least, as last year, and those of Western Europe much greater. A pressure in the money market, so severe as painfully to affect prices, and by so doing make British goods cheap here, in the fall, was likely to take place. It appeared also, the Emperor of Russia, in addition to the loan made to the Bank of France, had announced his intention of investing £2,000,000 in British stocks, and this afforded some relief, but far from sufficient. The present revulsion, like all those which have taken place in the last twenty years, is likely to produce some great change, and the movement now points strongly to an essential change in the Bank of England. The French Chambers have passed a law, authorizing the Bank of France to issue notes as low as 200 francs, or $40. The effect of this will be to displace a large amount of specie, and perhaps drive it over to England; indeed, exchanges were already turning in favor of London, as respects Paris, £200,000 having arrived there in the week ending May 1st. There does not appear to be any probability of a cessation of the import of coin from England to the United States, until after harvest, at least.

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### DUTY ON COPPER ORE IN ENGLAND.

A deputation of merchants and others, connected with the trade in foreign copper ores, had an interview, on the 22d ult., with Lord John Russell and the Chancellor of the Exchequer, at the official residence of the First Lord of the Treasury in Downing-street. The injury arising to the trade from the increase of smelting abroad, and the necessity for the immediate abolition of the duty, were strongly urged upon the ministers, and after a discussion of some duration, in which the Chancellor of the Exchequer took an active part, the deputation retired.

# COMMERCIAL REGULATIONS.

## COMMERCIAL TREATY BETWEEN THE U. S. AND HANOVER.

We publish, below, an authentic copy of a Treaty of Commerce and Navigation between the United States of America and His Majesty the king of Hanover, which was concluded and signed at the city of Hanover, on the 10th day of June, 1846, and duly ratified on both parts, the respective ratifications of the same being exchanged at the city of Hanover, on the fifth day of March, one thousand eight hundred and forty-seven, by A. Dudley Mann, special agent of the United States to His Majesty the king of Hanover, and the Baron George Frederick de Falcke, of His Majesty's Privy Council, Knight Grand-Cross of the Royal Guelphick Order, on the part of their respective governments. The Treaty is made public by the President of the United States, "to the end that the same, and every clause and article thereof, may be observed and fulfilled with good faith by the United States and the citizens thereof," and was signed by James K. Polk, President, and James Buchanan, Secretary of State, on the 24th day of April, 1847.

The United States of America, and His Majesty the king of Hanover, equally animated with a desire of placing the privileges of their navigation on a basis of the most extended liberality, and of affording otherwise every encouragement and facility for increasing the commercial intercourse between their respective States, have resolved to settle in a definitive manner the rules which shall be observed between the one and the other, by means of a treaty of navigation and commerce; for which purpose the President of the United States has conferred full powers on A. Dudley Mann, their special agent to His Majesty the king of Hanover, and His Majesty the king of Hanover has furnished, with the like full powers, the Baron George Frederick de Falcke, of his privy council, Knight Grand-Cross of the Royal Guelphick Order; who, after exchanging their full powers, found in good and due form, have concluded and signed, subject to ratification, the following articles:—

Art. 1. The high contracting parties agree, that whatever kind of produce, manufacture, or merchandise of any foreign country can be, from time to time, lawfully imported into the United States in their own vessels, may also be imported in vessels of the kingdom of Hanover; and no higher or other duties upon the tonnage or cargo of the vessel shall be levied or collected, whether the importation be made in a vessel of the United States or in a Hanoverian vessel. And in like manner, whatever kind of produce, manufacture, or merchandise of any foreign country can be, from time to time, lawfully imported into the kingdom of Hanover in its own vessels, may also be imported in vessels of the United States; and no higher or other duties upon the tonnage or cargo of the vessel shall be levied or collected, whether the importation be made in vessels of one party or the other..

Whatever may be lawfully exported or re-exported by one party in its own vessels to any foreign country may, in like manner, be exported or re-exported in the vessels of the other. And the same duties, bounties, and drawbacks, shall be collected and allowed, whether such exportations or re-exportations be made in vessels of the one party or the other.

Nor shall higher or other charges of any kind be imposed in the ports of the one party on vessels of the other, than are or shall be payable in the same ports by national vessels.

And further, it is agreed that no higher or other toll shall be levied or collected at Brunshausen or Stade, on the river Elbe, upon the tonnage or cargoes of vessels of the United States, than is levied and collected upon the tonnage and cargoes of vessels of the kingdom of Hanover; and the vessels of the United States shall be subjected to no charges, detention, or other inconvenience by the Hanoverian authorities, in passing the abovementioned place, from which vessels of the kingdom of Hanover are or shall be exempt.

Art. 2. The preceding article is not applicable to the coasting trade and navigation of the high contracting parties, which are respectively reserved by each exclusively to its own subjects or citizens.

Art. 3. No priority or preference shall be given by either of the contracting parties, nor by any company, corporation, or agent, acting on their behalf, or under their authority, in the purchase of any article of commerce, lawfully imported, on account of or in reference to the national character of the vessel, whether it be of the one party or of the other, in which such article was imported.

Art. 4. The ancient and barbarous right to wrecks of the sea shall remain entirely abolished with respect to the property belonging to the subjects or citizens of the high contracting parties.

When any vessel of either party shall be wrecked, stranded, or otherwise damaged on the coasts, or within the dominions of the other, their respective citizens or subjects shall receive, as well for themselves as for their vessels and effects, the same assistance which would be due to the inhabitants of the country where the accident happens.

They shall be liable to pay the same charges and dues of salvage as the said inhabitants would be liable to pay in a like case.

If the operations of repair shall require that the whole or any part of the cargo be unloaded, they shall pay no duties of customs, charges, or fees, on the part which they shall reload and carry away, except such as are payable in the like case by national vessels.

It is nevertheless understood, that if, whilst the vessel is under repair, the cargo shall be unladen and kept in a place of deposit destined to receive goods, the duties on which have not been paid, the cargoes shall be liable to the charges and fees lawfully due to the keepers of such warehouses.

Art. 5. The privileges secured by the present treaty to the respective vessels of the high contracting parties, shall only extend to such as are built within their respective territories, or lawfully condemned as prize of war, or adjudged to be forfeited for a breach of the municipal laws of either of the high contracting parties, and belonging wholly to their subjects or citizens.

It is further stipulated that the vessels of the kingdom of Hanover may select their crews from any of the States of the Germanic Confederation, provided that the master of each be a subject of the kingdom of Hanover.

Art. 6. No higher or other duties shall be imposed on the importation into the United States of any articles the growth, produce, or manufacture of the kingdom of Hanover, or of its fisheries; and no higher or other duties shall be imposed on the importation into the kingdom of Hanover of any articles the growth, produce, and manufacture of the United States, and of their fisheries, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any foreign country, or of its fisheries.

No higher or other duties and charges shall be imposed in the United States on the exportation of any articles to the kingdom of Hanover, or in Hanover on the exportation of any articles to the United States, than such as are or shall be payable on the exportation of the like articles to any other foreign country.

No prohibition shall be imposed on the importation or exportation of any articles the growth, produce, or manufacture of the kingdom of Hanover, or of its fisheries, or of the United States or their fisheries, from or to the ports of said kingdom, or of the said United States, which shall not equally extend to all other powers and States.

Art. 7. The high contracting parties engage, mutually, not to grant any particular favor to other nations in respect of navigation and duties of customs which shall not immediately become common to the other party; who shall enjoy the same freely, if the concession was freely made, or on allowing a compensation, as near as possible, if the concession was conditional.

Art. 8. In order to augment, by all the means at its bestowal, the commercial relations between the United States and Germany, the kingdom of Hanover hereby agrees to abolish the import duty on raw cotton, and also to abolish the existing transit duties upon leaves, stems, and strips of tobacco in hogsheads or casks, raw cotton in bales or bags, whale oil in casks or barrels, and rice in tierces or half tierces.

And, further, the kingdom of Hanover obligates itself to levy no Weser tolls on the aforementioned articles, which are destined for or landed in ports or other places within its territory on the Weser; and it, moreover, agrees, that if the States bordering upon said river shall consent at any time, however soon, to abolish the duties which they levy and collect upon said articles destined for ports or other places within the Hanoverian territory, the kingdom of Hanover will readily abolish the Weser tolls upon the same articles destined for ports and places in such States.

It being understood, however, that the aforesaid stipulations shall not be deemed to prohibit the levying, upon the said arricles, a tax sufficient for defraying the expense of maintaining the regulation respecting transit goods. But in no case shall such tax exceed eight pfennigs Hanoverian currency, (two cents United States currency) for one hundred pounds Hanoverian weight, (one hundred and four pounds United States weight.)

Art. 9. The high contracting parties grant to each other the liberty of having, each in the ports of the other, consuls, vice consuls, commercial agents, and vice-commercial agents of their own appointment, who shall enjoy the same privileges and powers as those of the most favored nations; but if any of the said consuls shall carry on trade,

they shall be subjected to the same laws and usages to which private individuals of their nation are subjected in the same place.

The consuls, vice-consuls, commercial, and vice-commercial agents, shall have the right as such, to sit as judges and arbitrators in such differences as may arise between the masters and crews of the vessels belonging to the nation whose interests are committed to their charge, without the interference of the local authorities, unless the conduct of the crews or of the captain should disturb the order and tranquility of the country, or the said consuls, vice-consuls, commercial agents, or vice-commercial agents should require their assistance, to cause their decisions to be carried into effect or supported.

It is, however, understood that this species of judgment or arbitration shall not deprive the contending parties of the right they have to resort, on their return, to the judicial authority of their own country.

The said consuls, vice-consuls, commercial agents, and vice-commercial agents, are authorized to require the assistance of the local authorities for the search, arrest, and imprisonment of the deserters from the ships of war and merchant vessels of their country.

For this purpose they shall apply to the competent tribunals, judges, and officers, and shall, in writing, demand said deserters, proving by the exhibition of the registers of the vessels, the muster-rolls of the crews, or by any other official documents, that such individuals formed part of the crews; and on this claim being thus substantiated, the surrender shall not be refused.

Such deserters, when arrested, shall be placed at the disposal of the said consuls, vice-consuls, commercial agents, or vice-commercial agents, and may be confined in the public prisons, at the request and cost of those who shall claim them, in order to be sent to the vessels to which they belong, or to others of the same country. But if not sent back within three months from the day of their arrest, they shall be set at liberty, and shall not be again arrested for the same cause. However, if the deserter shall be found to have committed any crime or offence, his surrender may be delayed until the tribunal before which his case shall be pending shall have pronounced its sentence, and such sentence shall have been carried into effect.

Art. 10. The subjects and citizens of the high contracting parties shall be permitted to sojourn and reside in all parts whatsoever of the said territories in order to attend to their affairs, and also to hire and occupy houses and warehouses for the purposes of their commerce, provided they submit to the laws, as well general as special, relative to the right of residing and trading.

Whilst they conform to the laws and regulations in force, they shall be at liberty to manage, themselves, their own business in all the territories subject to the jurisdiction of each party, as well in respect to the consignment and sale of their goods, by wholesale or retail, as with respect to the loading, unloading, and sending off their ships, or to employ such agents and brokers as they may deem proper, they being in all these cases to be treated as the citizens or subjects of the country in which they reside; it being, nevertheless, understood that they shall remain subject to the said laws and regulations; also, in respect to sales by wholesale and retail.

They shall have free access to the tribunals of justice in their litigious affairs on the same terms which are granted by the law and usage of country to native citizens or subjects, for which purpose they may employ in defence of their rights such advocates, attorneys, and other agents, as they may judge proper.

The citizens or subjects of each party shall have power to dispose of their personal property within the jurisdiction of the other by sale, donation, testament, or otherwise.

Their personal representatives, being cititizens or subjects of the other contracting party, shall succeed to their said personal property, whether by testament or *ab intestato*.

They may take possession thereof either by themselves or by others acting for them, at their will, and dispose of the same, paying such duty only as the inhabitants of the country wherein the said personal property is situate shall be subject to pay in like cases.

In case of the absence of the personal representatives, the same care shall be taken of the said property as would be taken of the property of a native in like case, until the lawful owner may take measures for receiving it.

If any questions should arise among several claimants to which of them the said property belongs, the same shall be finally decided by the laws and judges of the country wherein it is situated.

Where, on the decease of any person holding real estate within the territories of one party, such real estate would, by the laws of the land, descend on a citizen or subject of the other, were he not disqualified by alienage, such citizen or subject shall be allowed a reasonable time to sell the same, and to withdraw the proceeds without molestation, and exempt from all duties of detraction on the part of the government of the respective States.

The capitals and effects which the citizens or subjects of the respective parties, in changing their residence, shall be desirous of removing from the place of their domicil, shall likewise be exempt from all duties of detraction or emigration on the part of their respective governments.

Art. 11. The present treaty shall continue in force for the term of twelve years from the date hereof, and further until the end of twelve months after the government of Hanover on the one part, or that of the United States on the other part, shall have given notice of its intention of terminating the same; but upon the condition hereby expressly stipulated and agreed, that if the kingdom of Hanover shall determine, during the said term of twelve years, to augment the existing import duty upon leaves, strips, or stems of tobacco, imported in hogsheads or casks, a duty which at this time does not exceed one thaler and one gutengroschen per one hundred pounds Hanoverian currency and weight, (seventy cents per one hundred pounds United States currency and weight,) the government of Hanover shall give a notice of one year to the government of the United States before proceeding to do so; and at the expiration of that year, or any time subsequently, the government of the United States shall have full power and right to abrogate the present treaty by giving a previous notice of six months to the government of Hanover, or to continue it (at its option) in full force until the operation thereof shall have been arrested in the manner first specified in the present article.

Art. 12. The United States agree to extend all the advantages and privileges contained in the stipulations of the present treaty to one or more of the other States of the Germanic Confederation, which may wish to accede to them, by means of an official exchange of declarations; provided that such State or States shall confer similar favors upon the said United States to those conferred by the kingdom of Hanover, and observe and be subject to the same conditions, stipulations, and obligations.

Art. 13. The present treaty shall be approved and ratified by the President of the United States of America, by and with the advice and consent of their Senate, and by His Majesty the King of Hanover; and the ratifications thereof shall be exchanged at the city of Hanover, within the space of ten months from this date, or sooner, if possible, when the treaty of commerce and navigation concluded between the high contracting parties at Berlin, on the 20th day of May, 1840, shall become null and void to all intents and purposes.

In faith whereof, we, the plenipotentiaries of the high contracting parties, have signed the present treaty, and have thereto affixed our seals.

Done in quadruplicate, at the city of Hanover, on the tenth day of June, in the year of our Lord one thousand eight hundred and forty-six, and in the seventieth year of the Independence of the United States of America.

[L. S.] A. DUDLEY MANN.
[L. S.] GEORGE FREDERICK BARON DE FALCKE.

DECLARATION OF ACCESSION OF HIS ROYAL HIGHNESS THE GRAND DUKE OF OLDENBURG, UNDER THE TWELFTH ARTICLE OF THE FOREGOING TREATY.

Whereas a treaty of navigation and commerce, between the United States of America and His Majesty the king of Hanover, was concluded at Hanover, on the 10th day of June last, by the plenipotentiaries of the contracting parties, and was subsequently duly ratified on the part of both governments:

And whereas, by the terms of the 12th article of the same, the United States agree to extend all the advantages and privileges contained in the stipulation of the present treaty, to one or more of the other States of the Germanic confederation, which may wish to accede to them by means of an official exchange of declarations; provided that such State or States shall confer similar favors upon the said United States to those conferred by the kingdom of Hanover, and observe and be subject to the same conditions, stipulations, and obligations.

And whereas, the government of his royal highness the Grand Duke of Oldenburg has signified its desire to accede to the said treaty, and to all the stipulations and provisions therein contained, so far as the same are or may be applicable to the two countries, and to become a party thereto; that is to say, to all the stipulations and provisions, excepting only those relating to the Stade and the Weser tolls, in which the government of Oldenburg has no interest, and over which it has no control:

Now, therefore, the undersigned, Baron W. E. de Beaulieu Marcounay, of the privy council of his royal highness, and at the head of the Department of Foreign Affairs on the part of Oldenburg, and A. D. Mann, special agent on the part of the United States, invested with full powers to this effect, found in good and due form, have this day signed, in duplicate, and have exchanged this declaration of the accession (hereby

agreed to on the part of the United States) of his royal highness the Grand Duke of Oldenburg, for the Duchy of Oldenburg, to the treaty aforesaid, the effect of which accession and agreement is hereby declared to be to establish the said treaty between the high parties to this declaration, as fully and perfectly, to all intents and purposes, as if all the provisions therein contained, excepting as above excepted, had been recited word for word in a separate treaty, concluded and ratified between them in the ordinary form

In witness whereof, the above named plenipotentiaries have hereto affixed their names and seals. Done at Oldenburg, this 10th day of March, 1847.

W. E. Beaulieu Marcounay, [L. S.]
A. Dudley Mann. [L. S.]

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CORRESPONDENCE OF THE MINISTER OF FOREIGN AFFAIRS OF THE GRAND DUCHY OF MECKLENBURG-SCHWERIN, RELATIVE TO THE ACCESSION OF MECKLENBURG-SCHWERIN TO THE HANOVER TREATY.

*Schwerin*, March 20, 1847.

Sir—His royal highness the Grand Duke, having returned from Berlin, I have laid before him the object of your mission.

His royal highness begs to acknowledge the proposition of the President regarding the accession to the treaty entered into with Hanover, for the purpose of securing the shipping interest of Mecklenburg for a lengthened period. All these privileges the navigation of Mecklenburg enjoyed since the year 1835, when both governments interchanged articles.

His royal highness trusts the more, that no interruptions may take place in a state so prosperous to trade and navigation, the duties existing in Mecklenburg being in themselves very trifling. Propositions have been laid before the State of Mecklenburg to regulate these duties in a more appropriate and simple manner. The intention of government by this is, as I have already had the honor to explain, to secure the duties on home consumption and trade in a manner favorable to the interests of American exports. Raw cotton is intended to enter duty free, raw tobacco will not be subject to a higher duty than is stipulated at present in Hanover. The consumption duty on rice and train-oil will be a mere trifle. As soon as this system is established—nay, even before—his royal highness will most willingly grant the transit of the above mentioned four articles, to pass free of toll through his country from his seaports Rostock and Wismar.

* * * * * * * *

Enclosing you an answer to the Secretary of State, Mr. Buchanan, both in original and in copy, I return my best thanks for the candid and loyal manner in which you treated me, and acknowledge myself to be, with unalterable esteem, sir, your most obedient servant,

L. Von Lutzow.

To A. Dudley Mann Esq., &c., &c.

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*Letter to the Secretary of State.*

*Schwerin*, 26th March, 1847.

Sir—It is with real satisfaction I perceive from your excellency's favor of the 9th of January, that the President of the United States, led by the wish to strengthen and extend the friendly relation subsisting between the two countries, has charged Mr. A. Dudley Mann, special agent of the United States, with a mission to the government of the grand duke of Mecklenburg-Schwerin, and this gentleman has laid before me the propositions your excellency thought most proper to adopt.

It will scarcely need the assurance that the kind intentions of your government are gratefully acknowledged here, and that his royal highness the Grand Duke, my gracious master, fully coincides in the above opinion.

As, however, the intended treaty of commerce and navigation is to be analogous to the treaty lately entered into between the United States and the kingdom of Hanover, I regret to say, I was obliged to call the attention of your excellency's agent to the circumstance which prevents our government, for the present, to adopt that treaty in all its propositions.

I believe, however, I have convinced Mr. A. Dudley Mann, that the obstacle is by no means a tendency of the government of his royal highness, but solely results from the mode of levying duties, which, however, varying from the Hanoverian system, does not, even at present, the less favor free trade with all foreign States; and trusting that the discussions already entered into with our States (diet) respecting our custom-laws, in rendering them similar to the Hanoverian, will soon set aside all obstacles, I take this opportunity of assuring your excellency of my highest esteem.

L. Von Lutzow.

His Excellency James Buchanan, Minister Foreign Affairs, U. S. America.

LETTER FROM BURGOMASTER SMIDT, RESPECTING THE ABOLITION OF THE BREMEN TRANSIT DUTIES.

*Bremen*, March 9, 1847.

Dear Sir—I have had the honor to receive your favor of the 20th February from Hanover, communicating to me that in a convention which you concluded on the 10th of June last, for the United States of America with the kingdom of Hanover, that kingdom obligated itself to abolish the transit duties upon leaves, stems, and strips of tobacco, in hogsheads or casks, raw cotton, in bales or bags; whale oil, in casks or barrels; rice, in tierces or half tierces; subject, however, to the reservation of levying a sufficient tax to defray the expense of maintaining the regulations respecting transit goods—a tax which in no case is to exceed eight pfennigs per Hanoverian hundred pounds. Your object in communicating this fact, is to invite the Senate of this republic to follow the example of Hanover, by reducing the Bremen transit duties on the mentioned four articles, equally, to a mere tax for control.

I have communicated the contents of your favor to the Senate, and am authorized to inform you that the republic of Bremen will, after the ratifications of said convention have been exchanged, and for the time of its duration, reduce the Bremen transit duties on the above-mentioned four articles to one groat (equal to about four pfennigs) for one hundred pounds Bremen weight, when passing from the United States through the territory of this republic, to be sent into the kingdom of Hanover, and the Grand Duchy of Oldenburg, and that this republic is fully prepared to make the same reduction of its transit duties in favor of the States of the Zoll-Verein as soon and as long as the States of the Zoll-Verein will have reduced in a similar proportion their transit duties on the said four articles, when passing from this place to Switzerland.

The Senate will with pleasure seize every opportunity to facilitate the intercourse of the United States with the States of the Germanic confederation, and is happy to give by this a proof of its ardent desire for that purpose. I beg you will have the kindness to inform your government of the above-mentioned intentions; and avail myself of this opportunity to renew towards you the assurance of my high regard and esteem. SMIDT,

*The President of the Commission for foreign Affairs.*

To A. DUDLEY MANN, Esq., &c.

## POST-OFFICE REGULATIONS ON LETTERS TO BREMEN, ETC.

FOREIGN MAILS, NO. I., FROM NEW YORK, BY COWES, ENGLAND, TO BREMEN, GERMANY.

The arrangements for a regular conveyance of mails to and from Europe, by the above route, are so far completed, that the Washington, the first steamship of the line, will leave New York for Cowes and Bremen Haven, on Tuesday, the 1st day of June next; and also on the first day of each second month thereafter.

It is expected that the second steamship will be ready to depart in the course of the season, on the 1st day of each intermediate month, thus furnishing a monthly mail in each direction. Of the commencement of the monthly arrangement, due notice will be given.

POSTAGE.—The inland postage to the city of New York, as well as the postage by steamer from New York, is to be prepaid on all mailable matter to be conveyed by this line, excepting that addressed to Bremen, or to places to which said matter will pass through the Bremen post-office. Hamburg is not included in this exception. To Bremen, and to the points supplied through that office, unpaid letters, &c., may be sent; postage to be collected at Bremen.

The rates of postage established by the act of March 3, 1846, "to provide for the transportation of the mail between the United States and foreign countries," are as follows:

Upon all letters and packages not exceeding one half-ounce in weight, 24 cents; over one half-ounce in weight, and not exceeding one ounce, 48 cents; and for every additional half-ounce or fraction of an ounce, 15 cents.

Upon each newspaper, pamphlet, and price-current, 3 cents.

Inland postage in all cases to be added, whenever the matter is transported by mail within the United States.

The following is the fourth section of the act above-mentioned:—

"And be it further enacted, That it shall not be lawful for any person to carry or transport any letter, package, newspaper, or printed circular, or price-current, (except newspapers in use, and not intended for circulation in the country to which said vessel may be bound,) on board the vessels that may hereafter transport the United States mail, as provided for in this act; and for every violation of this provision, a penalty of $500 is hereby imposed, to be recovered by presentment, by information, or quitam action—one-half for the use of the informer, and the other half for the use of the Post-office Department."

*Post-office Department*, April 30, 1847. C. JOHNSON, *Postmaster-General.*

# RAILROAD, CANAL, AND STEAMBOAT STATISTICS.

## OCEAN STEAMERS BETWEEN HAVRE AND NEW YORK.

The following are the regulations, &c., of the contract between the company and the French government, established between Havre and the port of New York, as translated from the *Journal du Havre*:—

Article 1. Each vessel shall be fully equipped with everything necessary; shall have a sufficient number of boats for all the wants of the service; shall carry two cannons, and have a crew the minimum number of which is fixed as follows:—

| | | | |
|---|---|---|---|
| Captain,..... | 1 | Assistant Engineers,..... | 2 |
| Second do.,..... | 1 | Firemen,..... | 12 |
| Lieutenants,..... | 2 | Cooks,..... | 2 |
| Surgeon,..... | 1 | Assistant do.,..... | 1 |
| Quartermasters,..... | 2 | Steward,..... | 1 |
| Carpenter,..... | 1 | Assistant do.,..... | 2 |
| Sailors,..... | 40 | | |
| Apprentices,..... | 8 | Total..... | 79 |
| Master Engineer,..... | 1 | | |

The servants and boys are not to be comprised in the crew.

Art. 2. The vessels are to be delivered to the company by the marine department in perfect navigable condition, as well as their machinery and rigging. The company are to certify to the seaworthy condition of the steamers before each departure.

Art. 3. The clothing of the officers and crew is to be uniform.

This uniform is to be decided by the company itself, subject to the approval of the Minister of Finance.

The company, moreover, is authorized to make what rules it may judge to be necessary and useful for the service and the expedition of the service, subject always to the approbation of the Minister of Finance.

Art. 4. The engineers on board each vessel are to be men of known skill.

SEC. II.—OF THE ROYAL COMMISSARIAT.

Art. 5. There shall be established in Havre a Royal Commissariat, the duties of which are—

1. To see that the various clauses of the present regulations be strictly fulfilled.
2. To inform the Minister of Finance of any infraction of them that may take place.
3. To point out any modification which it may be deemed advisable to make, either in the organization of the services, or in the *materiel* of the vessels.

Art. 6. The Royal Commissary is to be appointed by the Minister of Finance, and shall receive a salary of 5,000 francs, the which is to be paid by the company, who are to pay the said sum yearly in advance to the Central Treasury Office.

SEC. III.—OF THE MAIL AGENT ON BOARD, AND THE SERVICE TO BE FULFILLED BY THE VESSELS.

Art. 7. There shall be on board each vessel an agent, who is to be appointed by the Minister of Finance, and who shall have the mails confided to his charge.

This agent is to be allowed a servant.

Art. 8. The mail agent shall have an official character, which is to be recognized by all on board; likewise all that concerns the reception and transmission of the mails, is to be under his sole charge.

Art. 9. The mail agent is to be allowed the gratuitous use of a first class cabin.

His board is to be at the expense of the company; he is to eat at the table of the first class passengers, and to be treated in every way as a passenger of that class.

He is to have a boat of at least four oars placed at his disposition, for the wants of his service.

Art. 10. The company are to prepare on board each packet, and in the immediate vicinity of the cabin of the mail agent, some secure place, capable of being put under lock and key, for the reception of the mail bags.

Art. 11. If the mail agent has a servant, said servant is to be gratuitously boarded and lodged by the company.

He is to be comfortably lodged, and live like the other servants on board.

Art. 12. The arrangements expressed in articles 9 and 11, are also applicable in those cases where the royal commissary, or an inspector of finances, is charged with the inspection of the service of the packets, or any other mission relating to the service of the mail between France and America. In case such should happen, the said agents are to enjoy all the advantages mentioned in said articles.

Art. 13. In case the mail agent shall, in consequence of sickness or any other unforeseen accident, find it impossible to undertake or continue a voyage, and no other agent shall have been sent on board to replace him, the captain of the vessel shall become responsible for the performance of this part of the service, without being entitled to receive any remuneration; and he is to incur the same responsibility as the agent whose place he fills, as well in the dispatch as in the reception of the mail.

SEC. IV.—OF THE CONDITIONS FOR THE TRANSPORTATION OF THE MAIL.

Art. 14. The various mail bags are to be received on board. In France, these bags are to be delivered to the mail agent by the postmaster at Havre; and in New York, either by the French Consul-General or the post-office authorities of the country, or by a special agent, should one be appointed. Neither the captains, officers, crews, or passengers, are to carry any letters, or are any to be conveyed save in the mail bags, unless diplomatic or consular documents. The infringement of this regulation will make the offender liable to the punishment for fraudulent transportation of letters.

Art. 15. No merchandise is to be received on board after the day fixed for sailing, no matter what may be the reason for the delay. An infringement of this rule will render the company liable to a fine of 20,000 francs for each offence.

Art. 16. The terms for the transportation of passengers shall be regulated under the supervision of the Minister of Finance, and are to be revised annually.

Art. 17. Whenever they are required, the company shall receive on board, independently of the mail agent,

1st. At the most, two officers of the navy, or two officers of the civil service, who shall be entitled to a first class position on board.

2dly. Two other military or civil agents, who shall be entitled to second class accommodations.

3dly. Ten sailors.

The passage money for these officers, agents, and sailors, shall be only two-thirds of the price fixed for ordinary passengers.

Art. 18. The company shall be bound to receive on board of the packets, and transport free of charge, all small-sized parcels containing instruments of astronomy or other scientific apparatus, whenever such transportation shall be demanded of them by the government.

The company shall likewise be bound to transport such naval stores as the government may wish to send. These naval stores, the bulk of which shall not exceed five tons each voyage, are to pay the same rate of freight as ordinary merchandise, the company always to have two days' notice of the intended shipment of such goods.

Art. 19. Each steamer shall, at its departure, either from France or America, have on board enough coal for 18 days' consumption, calculating the same at the rate of four killogrammes per hour, and by the horse-power of the engine.

It shall be in the power of the Minister of Finance to modify this last regulation, according as experience shall demonstrate the utility of increasing or diminishing the quantity of coal to be taken on board for every voyage.

SEC. V.—SAILING OF THE PACKETS.

Art. 20. The packets shall make their departure at the periods hereafter mentioned, viz.: From Havre to New York twice during every month, from December to March, inclusive.

The departures from New York shall take place according to the season, from ten to fifteen days after the arrival out of the vessel. Long passages, occasioned by unavoidable circumstances, may interfere with this regulation.

Art. 21. Whenever it shall be rendered absolutely necessary by extraordinary circumstances, the departure may be delayed at the requisition of the French Consul-General in New York, or of the royal government at Havre. This delay, however, can never, under any circumstanes, exceed two days after the time originally fixed for departure.

Art. 22. The hour of departure shall be fixed by the captain, and entered on the log-book.

Art. 23. The packets are to go in a direct route from the port of departure to that of their destination, without making any deviation therefrom, save in cases of absolute necessity. The company binds itself to perform the passage from Havre to New York

and back, with all the despatch that it is possible to use in a regular service, and with their vessels and engines.

Should any delays take place from fault on the part of the company, the Minister of Finance shall have the right of rescinding the contract with them.

In case the vessels are forced to enter any port in distress, save those of Havre and New York, or in consequence of tempests, contrary winds, or other legitimate causes, they are to produce (independent of the regular entry in the log-book) on their return, a certificate of the consul or authorities of such port, attesting the unavoidable nature of the case.

SEC. VI.—OF THE PENALTIES.

Art. 24. Save in cases of absolute necessity, such as are alluded to above, any infringement of the rules laid down regarding the days and hours of departure, shall render the company liable to a fine of 10,000 francs per day for the first three days.

At the expiration of these three days of unjustifiable delay, the fine may be increased to 60,000 francs.

Should this infringement of the agreement be repeated three times during the course of one year, the Minister of Finance shall have the right to rescind the contract.

From every deviation from the direct route unjustifiable by the strictest necessity, the fine shall be for the first time 10,000 francs, and for the second 20,000 francs. On the third infraction of this kind, in the course of one year, the Minister of Finance shall be entitled to rescind the contract.

Art. 25. Whenever the contract may be rescinded, or in case it is not renewed, the company shall return the vessels to government in precisely similar order to that in which they receive them.

SEC. VII.—DURATION OF THE CONTRACT.

Art. 26. The contract shall last for ten consecutive years, counting from the time of the departure of the first boat that shall be despatched from Havre, until the return of the one despatched at the expiration of the tenth year.

Art. 27. The present contract shall commence, and the first departure from Havre shall take place one month after the vessels shall have been delivered to the company.

Art. 28. In case the company shall not commence operations by the time mentioned in the previous article, they shall be liable to a fine of 1,000 francs per day for the delay.

Art. 29. The present contract shall cease at the end of ten years, provided notice of such expiration has been given by either party a year previous. Should such not be the case, the contract shall continue on the same terms, and by a tacit understanding for the twelve succeeding months, at the end of which, formal notice is to be given by each party.

SEC. VIII.—PARTICULAR ARRANGEMENTS.

Art. 30. With a view of facilitating the movements of the company, the Minister of Marine Affairs, and the same of the Finances, will give the necessary instructions to the maritime authorities of the various French ports, to grant every facility which can contribute to the despatch of business. The Minister of Foreign Affairs also promises to do his utmost to obtain from foreign authorities the most favorable consideration for the company.

The company, on its side, shall strictly conform to all the custom-house regulations of foreign countries, on pain of rescinding the contract.

Art. 31. The contract between the government and the company, cannot be in any manner let out or ceded to third parties, either in part or whole, without the written consent of the Minister of Finance. Should it be known that the company have sublet or ceded any part of their contract without his permission, the Minister of Finance shall have the right to rescind the contract, without the company being entitled to any indemnity whatever.

Art. 32. The company shall be located in Paris, in the Rue d'Antin, No. 7,

## TRAFFIC OF THE GERMAN RAILROADS IN 1846.

The Journal des Debats publishes a letter dated Leipsic, 27th ult., mentioning that during the last year there were conveyed by the German railroads 16,412,229 travellers, and 31,833,939 quintals of merchandise, which produced a sum total of 54,646,282f., and represents an increase of 16,431,208f., that is, 43 per cent.

## VESSELS BUILT AND LAUNCHED ON THE LAKES IN 1846.

The Buffalo Commercial Advertiser furnishes the following tabular statement of the accession to the marine of the Western waters. The giant strides of the West have called forth the capital and energy of its people, and the many vessels that have been constructed in addition to those previously in commission, found ample and profitable employment during the season. So important has the growing commerce of our lakes become, that capital has been transferred from other branches of business, and every shipyard along the chain of lakes presents a scene of bustling activity with the extensive preparations making for the season of 1847:—

| Names. | Place. | Tons. | Names. | Place. | Tons. |
|---|---|---|---|---|---|
| **STEAMERS.** | | | | | |
| A. D. Patchin, | Trugoa, | 874 | Ohio, | Cleveland | 550 |
| Baltic, | Buffalo, | 800 | S. Ward, | Newport, | 375 |
| Louisiana, | " | 778 | Detroit, | " | 350 |
| Sultana, | " | 900 | Islander, | Kerry's Island, | 80 |
| Canada, | Chippewa, | 750 | Niles, | Niles, | 80 |
| Hendrik Hudson, | Charleston, | 751 | Dallas, (U.S. iron) | Buffalo, | 350 |
| Albany, | Detroit, | 700 | Algomah, | Detroit, | 71 |
| Saratoga, | Cleveland, | 662 | Mishawaka, | " | 34 |
| **PROPELLERS.** | | | | | |
| St. Joseph, | Buffalo, | 460 | Delaware, | Charleston, | 336 |
| Pocahontas, | " | 427 | Globe, | Maumee, | 313 |
| California, | " | 420 | Earl Cathcart, | Amherstburgh, | 300 |
| Oneida, | Cleveland, | 346 | Goliath, | Palmer, | 280 |
| Cleveland, | " | 342 | Odd Fellow, | Grand R. Mich., | 200 |
| Lady of the Lake, | " | 350 | | | |
| **BARQUES AND BRIGS.** | | | | | |
| Utica, | Milwaukie, | 334 | Fashion, | Cleveland, | 282 |
| C. I. Hutchinson, | " | 341 | John Hancock, | " | 260 |
| Ellen Parker, | Chicago, | 332 | G. Mountain Boy, | " | 260 |
| Patrick Henry, | Euclid, | 317 | David Smart, | Lexington, | 203 |
| L. A. Blossom, | Conneaut, | 258 | | | |
| **SCHOONERS.** | | | | | |
| Outward Bound | Cleveland, | 260 | Ireland, | Cleveland, | 230 |
| Gen. Davis, | Milan, | 238 | Westchester, | Charleston, | 208 |
| Philena Mills, | Geneva, | 228 | Wolcott, | Maumee, | 40 |
| Denmark, | Cleveland, | 237 | Alvin Clark, | Truago, | 220 |
| Lewis Cass, | Charleston, | 191 | New Hampshire, | Kalamazoo, | 80 |
| Col. Benton, | Racine, | 190 | Forester, | Detroit, | 108 |
| Luther Wright, | Huron, | 195 | B. G. Allen, | " | 26 |
| Vincennes, | Charleston, | 186 | Mary A. Lownd, | " | 79 |
| G. T. Williams, | Irving, | 167 | Pinta, | Buffalo, | 55 |
| C. Y. Richmond, | Cleveland, | 229 | M. A. Myers, | " | 16 |
| Watts Sherman, | Buffalo, | 199 | Saranac, | Detroit, | 39 |
| Puritan, | Milan, | 223 | Meteor, | " | 32 |
| Sea Gull, | " | 125 | Jno. Armstrong, | " | 26 |
| S. L. Noble, | Fairport, | 104 | Gallinipper, | " | 145 |
| N. C. Walton, | Chicago, | 127 | St. Clair, | " | 35 |
| E. Porter, | Milwaukie | 75 | Clemantine, | " | 19 |
| Ellen, | Cleveland, | 61 | Julia, | " | 94 |
| Harwich, | " | 78 | Sweet Home, | " | 44 |
| **SCOWS.** | | | | | |
| Rialto, | Cleveland, | 100 | Liberator, | Cleveland, | 45 |
| **SLOOPS.** | | | | | |
| Bazma, | Conneaut, | 10 | Sun, | Detroit, | 35 |
| Buffalo, | Detroit, | 36 | China, | " | 61 |
| Morning Star, | " | 38 | | | |
| **REBUILT.** | | | | | |
| Schr. T. G. Colt, from schr. Mariam, | Cleveland, | 90 | Schr. La Salle, | Cleveland, | 160 |
| **ENLARGED.** | | | | | |
| Sch N. C. Baldwin, | Conneaut, | 46 | Brig O. Richmond, | Chicago, | 84 |

The subjoined shows the number, class, and tonnage of vessels built on Lake Erie and the upper lakes during the past six months. Full $1,000,000 have been expended in the construction and repairs of the vessels put in commission during the season of 1846, which, added to the cost of construction, annual repairs, and money expended in enlarging and remodelling vessels launched within the previous five years, will swell the aggregate to $3,500,000. This large increase to the lake marine, it must be borne in mind, has been made above the Falls, and the capital drawn from the many sources legitimately pertaining to the lake business, and designed as a permanent investment.

| | Steamers. | Propellers. | Sail. | Tons. |
|---|---|---|---|---|
| 1846 | 16 | 11 | 45 | 18,999 |
| 1845 | 18 | 4 | 32 | 10,207 |
| 1844 | 9 | .. | 34 | 9,145 |
| 1843 | 6 | 4 | 24 | 4,830 |
| 1842 | 2 | .. | 22 | 3,090 |
| 1841 | 1 | .. | 28 | 3,530 |
| Total | 47 | 19 | 185 | 49,801 |

## PENNSYLVANIA STATE TOLLS ON MERCHANDISE.

STATE CHARGES, ON THE MAIN LINE OF THE PENNSYLVANIA IMPROVEMENTS, FROM PHILADELPHIA TO PITTSBURGH.

The following shows the aggregate amount of State Tolls, (including motive power, truckage, boat toll, &c., &c.,) on freight, agreeably to the rates established for the year 1847, by the Board of Canal Commissioners:—

| Articles, per 100 lbs. | Cars and bt's. Cargo, 60,000 pounds. c. | m. | Portable bt's. Cargo, 30,000 pounds. c. | m. |
|---|---|---|---|---|
| Hats, caps, boots, bonnets, looking-glasses, | 53 | 6 | 57 | 0 |
| Dry-goods, | 46 | 0 | 49 | 4 |
| Paper, red lead, litharge, | 42 | 2 | 45 | 6 |
| Brown muslins, sheetings, manufactured copper, | 38 | 3 | 41 | 7 |
| Groceries, drugs, foreign liquors, ropes and cordage, manufactured marble, mahogany, leather, dry hides, | 37 | 3 | 40 | 7 |
| Paints, dye-stuffs, manufactured tobacco, | 34 | 5 | 37 | 9 |
| Hardware, wool, oil, feathers, | 32 | 3 | 35 | 7 |
| Rags, | 30 | 3 | 33 | 7 |
| Queensware, steel, white lead, | 29 | 8 | 33 | 2 |
| Coffee, fish, tin in blocks, or sheets, copper in sheets, seeds of all kinds, buffalo and deer skins, pitch and rosin, | 27 | 3 | 30 | 7 |
| Leaf tobacco, earthenware, and whiskey, | 24 | 8 | 28 | 2 |
| Bacon, lard, lard oil, butter, cheese, tallow, anvils, Sp. whiting, | 23 | 3 | 26 | 7 |
| Bagging, hemp, hempen yarns, oil-cake, bale-rope, copperas, barytes, potash, | 22 | 3 | 25 | 7 |
| Block marble, | 20 | 3 | 23 | 7 |
| Cotton, wheat, | 19 | 8 | 23 | 2 |
| Flour, barley, corn, rye, oats, beef, pork, burr blocks, pig lead, and shot, | 17 | 3 | 20 | 7 |
| Unenumerated articles, furs and peltry | 47 | 0 | 50 | 4 |

## NEW YORK AND LIVERPOOL STEAMERS.

The *Glasgow Citizen* gives us the following information relative to the new Atlantic steamers now building in the Clyde. The British and North American Mail Steam Packet Company have ordered four immense timber steamships to be fitted out for plying between Liverpool and New York. Three of these are being built by Mr. R. Steel, of Greenock, and the fourth by that veteran in the art of steamboat building, Mr. John Steel, of Port Glasgow, who in 1811 launched from his building yard the first passenger steamer which ever ploughed the waters of the Clyde. The first of these leviathan steamships will be launched early in March; she is close upon 2,000 tons' register, and will have engines of 750 horse-power. The other three are of the same size, and are constructed on the same model, being, over all, in length, 385 feet; in breadth of beam, 38 feet; and having a depth of 23 feet. These vessels are intended to ply fortnightly between Liverpool and New York, commencing on the 1st January, 1848.

# JOURNAL OF BANKING, CURRENCY, AND FINANCE.

## COINS AND CURRENCY OF THE HAWAIIAN ISLANDS.

We are indebted to James Jackson Jarvis, Esq., the editor of the "Polynesian," published at Honolulu, Oahu, for a copy of the first volume of the "Statute Laws of His Majesty Kamehameha III., King of the Hawaiian Islands, passed by the Houses of Nobles and Representatives, during the 21st year of his reign, and the 3d and 4th years of his public recognition, A. D. 1845 and 1846: to which are appended the Acts of Public Recognition, and the Treaties with other Nations." It forms a neatly printed octavo volume of 382 pages. From this work we copy Chapter IV., relating to Coins, Currency, and Interest:—

### OF COINS AND CURRENCY.

Sec. 1. The currency of the Hawaiian Islands shall consist of the dollar, valuing 100 cents, American currency; the half dollar, valuing 50 cents; the quarter dollar, valuing 25 cents; the eighth of a dollar, valuing 12½ cents; and the sixteenth of a dollar, valuing 6¼ cents; and the cent, a copper coin impressed with the head of His Majesty, surrounded by the words "Kamehameha III, ka moi;" on the reverse, "Aupuni Hawaii." Gold and silver coins wearing the legalized impress of any sovereign State, shall be receivable in payment of government dues, duties and taxes at the exchequer, and in tender or payment of debts contracted by private individuals in this kingdom, at their current or merchantable value, for the time being, at Honolulu, to be established by evidence. In case any of the said coins be refused, the payer having tendered, may bring the same into court, and plead such tender and refusal in bar of costs, as prescribed in the act to organize the judiciary.

Sec. 2. The minister of finance shall cause to be minted for circulation, a copper coin as described in the preceding section; and, with the advice of two-thirds of the privy council, and approbation of His Majesty, he may also cause to be minted any small silver coins of such description and quantity as said council shall direct.

Sec. 3. The better to regulate and conduct the financial operations of this government, the privy council shall form and is hereby created a board of finance. It shall be the duty of the minister of finance to devise and recommend measures to be laid before the said board, and the said minister shall succeed to all the rights in action and dues now pertaining to the Hawaiian Treasury Board, created by an act of the legislative council passed at Lahaina, Maui, on the 10th day of May, A.D. 1842, whereby Doctor G. P. Judd, Timothy Haalilio, and John Ii, were especially empowered to conduct the financial operations of government. He shall be in like manner liable for all the lawful undertakings, promises, and obligations of said board.

Sec. 4. The minister of finance shall have power, two-thirds of the board concurring, to make loans at home or abroad in favor of the government—to issue exchequer bills and bills of credit, bearing his signature, stipulating such rate of interest, and payable at such time as two-thirds of the board may, by vote, establish, and to be receivable at the exchequer in payment of government dues, duties, and taxes, at any time before or after their maturity for the amounts therein expressed. The government faith and revenues shall be, and are hereby pledged for the redemption of all loans so made by the minister of finance, and for the punctual payment at maturity, of all exchequer bills or bills of credit so issued as aforesaid, with the interest stipulated thereon; and the government faith is further hereby pledged for the receipt and acceptance at the exchequer of all such bills before maturity and without accrued interest, in payment of government dues, duties, and taxes.

Sec. 5. The seal of the department of finance shall be the corporate seal of said board, and be impressed as such upon all specialities issued thereby, importing the pecuniary faith and credit of his majesty's government, and in like manner upon all documents, attestations, certificates and copies issued as evidences, of fiscal transactions by the minister of finance; which seal so impressed shall be admitted in evidence before any court of justice, that the signature to the instrument impressed are genuine.

### OF INTEREST.

Sec. 1. For all the purposes of this chapter, the better to regulate the Hawaiian currency and the home and the foreign commerce of this kingdom, 1 per centum per month, or 12 per centum per annum, shall be the lawful interest to accrue upon all interest-bearing contracts not otherwise specified in writing.

Sec. 2. It shall in no case be deemed unlawful to stipulate by written contract for a higher rate of interest than 12 per cent per annum, provided the contract to that effect be signed by the party to be charged therewith.

Sec. 3. In all cases when contracts commence to draw interest, and no stipulation in writing exists to the contrary, they shall be deemed to draw 12 per cent, simple interest, per annum, not to be compounded from year to year.

## REVENUE OF GREAT BRITAIN, IN 1846-47.

The following is an abstract of the nett produce of the revenue of Great Britain, in the years and quarters ending the 5th of April, 1846 and '47, showing the increase or decrease thereof:—

| | YEARS ENDED APRIL 5. | | | | QRS. ENDED APRIL 5. | |
|---|---|---|---|---|---|---|
| | 1846. | 1847. | Increase. | Decrease. | 1846. | 1847. |
| | £ | £ | £ | £ | £ | £ |
| Customs..... | 17,664,618 | 18,796,620 | 1,132,092 | ..... | 3,961,918 | 4,447,673 |
| Excise..... | 11,886,085 | 12,547,657 | 661,572 | ..... | 1,626,458 | 1,652,865 |
| Stamps..... | 7,095,521 | 7,062,828 | ..... | 32,693 | 1,685,868 | 1,817,282 |
| Taxes..... | 4,224,039 | 4,257,158 | 33,119 | ..... | 146,142 | 130,892 |
| Property tax ..... | 5,084,741 | 5,464,581 | 379,840 | ..... | 1,963,882 | 2,033,072 |
| Post-office..... | 768,000 | 820,000 | 52,000 | ..... | 215,000 | 219,000 |
| Crown lands..... | 130,000 | 112,000 | ..... | 18,000 | 45,000 | 37,000 |
| Miscellaneous..... | 188,888 | 318,161 | 129,273 | ..... | 91,522 | 92,593 |
| Total ordinary rev. | 47,041,892 | 49,879,005 | 2,387,806 | 50,693 | 9,735,790 | 10,430,377 |
| China money..... | 750,859 | 667,644 | .... | 83,215 | ..... | ..... |
| Imprest and other moneys..... | 170,846 | 193,497 | 22,651 | ..... | 52,909 | 53,859 |
| Repayments of advances..... | 1,516,887 | 778,506 | ..... | 738,381 | 456,473 | 164,568 |
| Total income*.... | 49,480,484 | 51,018,652 | 2,410,457 | 872,289 | 10,245,172 | 10,648,804 |
| Deduct decrease..... | | | 872,289 | | | |
| Increase on the year..... | | | 1,533,168 | | | |

The total income for the quarter is £10,661,417; the first instalment of the loan of eight millions is £960,000; giving a total of £11,621,417. The total charge, including £2,300,000 of advances to Ireland during the quarter, under the Act 9 and 10 Vic., c. 107, is £10,992,636, leaving a surplus of £628,781. This surplus, added to the £1,365,455 of surplus remaining at the close of the quarter ending 5th January, 1847, gives an available total of £1,994,236. The amount issued during the quarter just ended, of the sums granted by Parliament out of the Consolidated Fund for supply services, is £5,461,196; so the probable amount of Exchequer Bills required to meet the charge on the Consolidated Fund during the quarter, does not exceed £3,466,960. There is a marked increase both in the customs, which indicate the condition of the general trade, and in the Post-office, which indicates the activity of commercial enterprise, and the successful working of the penny postage system.

## CONDITION OF THE BANK OF FRANCE.

The statement of the accounts of the Bank of France for the first quarter of the year, made up to the 25th ultimo, shows the following results:—Actif. The bank had on that day, in cash, 79,535,819f. 87c.; in discount and loans, 212,215,665f. 67c.; in branch banks' accounts, 78,459,960f. 67c.; in rentes, public securities, and reserve funds, 64,261,881f. 50c.; credits and various items, 594,895f. 98c.—Passif. Amount of bank notes in circulation, 249,404,694f. 94c.; accounts current, 98,442,463f. 89c.; capital and reserve, 81,900,000f.; different items, 5,351,364f. 89c.; total, 435,068,628f. 69c. The discounts, advances, and loans, made during the quarter, amounted to 201,587,962f. 77c.; movement of the accounts current (private) 8,130,992,900f.; (public) 274,849,000f.; general movement of the caisses, 3,741,631,400f.

* Exclusive of £960,000 received on a loan of £8,000,000.

## ENTIRE COINAGE OF THE UNITED STATES.

The following statement shows the coinage of the Mint of the United States, in the several years from its establishment, in 1793, and including the coinage of the Branch Mints from the commencement of their operations, in 1838 :—

| | Gold. | Silver. | Copper. | Total No. pieces. | Total value. |
|---|---|---|---|---|---|
| 1793 } 1794 } 1795 } | $71,485 00 | $370,683 80 | $11,373 00 | 1,833,420 | $453,541 80 |
| 1796 | 102,727 50 | 79,077 50 | 10,324 40 | 1,219,370 | 192,129 40 |
| 1797 | 103,422 50 | 12,591 45 | 9,510 34 | 1,095,165 | 125,524 29 |
| 1798 | 205,610 00 | 330,291 00 | 9,797 00 | 1,368,241 | 545,698 00 |
| 1799 | 213,285 00 | 423,515 00 | 9,106 68 | 1,365,681 | 645,906 68 |
| 1800 | 317,760 00 | 224,296 00 | 29,279 40 | 3,337,972 | 571,335 40 |
| 1801 | 422,570 00 | 74,758 00 | 13,628 37 | 1,571,390 | 510,956 37 |
| 1802 | 423,310 00 | 58,343 00 | 34,422 83 | 3,615,869 | 516,075 83 |
| 1803 | 258,377 50 | 87,118 00 | 25,203 03 | 2,780,880 | 370,698 53 |
| 1804 | 258,642 50 | 100,340 50 | 12,844 94 | 2,046,839 | 371,827 94 |
| 1805 | 170,367 50 | 149,388 50 | 13,483 48 | 2,260,361 | 333,239 48 |
| 1806 | 324,505 00 | 471,319 00 | 5,260 00 | 1,815,409 | 801,084 00 |
| 1807 | 437,495 00 | 597,448 75 | 9,652 21 | 2,731,345 | 1,044,595 96 |
| 1808 | 284,665 00 | 684,300 00 | 13,090 00 | 2,935,888 | 982,055 00 |
| 1809 | 169,375 00 | 707,376 00 | 8,001 53 | 2,861,884 | 884,752 53 |
| 1810 | 501,435 00 | 638,773 50 | 15,660 00 | 3,056,418 | 1,155,868 50 |
| 1811 | 496,905 00 | 608,340 00 | 2,495 95 | 1,649,570 | 1,108,740 95 |
| 1812 | 290,435 00 | 814,029 50 | 10,755 00 | 2,761,646 | 1,115,219 50 |
| 1813 | 477,140 00 | 620,951 50 | 4,180 00 | 1,755,331 | 1,102,271 50 |
| 1814 | 77,270 00 | 561,687 50 | 3,578 30 | 1,833,859 | 642,535 80 |
| 1815 | 3,175 00 | 17,308 00 | ..... | 69,867 | 20,483 00 |
| 1816 | ..... | 28,575 75 | 28,209 82 | 2,889,135 | 57,785 75 |
| 1817 | ..... | 607,783 50 | 39,484 00 | 5,163,967 | 647,267 50 |
| 1818 | 242,940 00 | 1,070,454 50 | 31,670 00 | 5,537,084 | 1,345,064 50 |
| 1819 | 258,615 00 | 1,140,000 00 | 26,710 00 | 5,074,723 | 1,425,325 00 |
| 1820 | 1,819,030 00 | 501,690 70 | 44,075 50 | 6,492,509 | 1,364,786 20 |
| 1821 | 189,325 00 | 825,762 45 | 3,890 00 | 3,139,249 | 1,018,977 45 |
| 1822 | 88,980 00 | 805,806 50 | 20,723 39 | 3,813,788 | 915,509 89 |
| 1823 | 72,425 00 | 895,550 00 | ..... | 2,166,485 | 967,975 00 |
| 1824 | 93,200 00 | 1,752,477 00 | 12,620 00 | 4,786,894 | 1,858,297 00 |
| 1825 | 156,385 00 | 1,564,583 00 | 14,926 00 | 5,178,760 | 1,735,894 00 |
| 1826 | 92,245 00 | 2,002,090 00 | 16,344 25 | 5,774,434 | 2,110,679 25 |
| 1827 | 131,565 00 | 2,869,200 00 | 23,577 32 | 9,097,845 | 3,024,342 32 |
| 1828 | 140,145 00 | 1,575,600 00 | 25,626 24 | 6,196,853 | 1,741,381 24 |
| 1829 | 295,717 50 | 1,994,578 00 | 16,580 00 | 7,674,501 | 2,306,875 50 |
| 1830 | 643,105 00 | 2,495,400 00 | 17,115 00 | 8,357,191 | 3,155,620 00 |
| 1831 | 714,270 00 | 3,175,000 00 | 33,603 60 | 11,792,284 | 3,923,473 60 |
| 1832 | 798,435 00 | 2,579,000 00 | 23,620 00 | 9,128,387 | 3,401,055 00 |
| 1833 | 978,550 00 | 2,759,000 00 | 38,160 00 | 10,307,790 | 3,765,710 00 |
| 1834 | 3,954,270 00 | 3,415,002 00 | 19,151 00 | 11,637,643 | 7,388,423 00 |
| 1835 | 2,186,175 00 | 3,443,003 00 | 34,489 00 | 15,996,342 | 5,668,667 00 |
| 1836 | 4,135,700 00 | 3,606,100 00 | 23,100 00 | 13,719,333 | 7,764,900 00 |
| 1837 | 1,148,305 00 | 2,096,010 00 | 55,583 00 | 13,010,721 | 3,299,898 00 |
| 1838 | 1,809,595 00 | 2,333,243 00 | 63,702 00 | 15,780,311 | 4,206,540 00 |
| 1839 | 1,355,885 00 | 1,189,296 00 | 31,286 61 | 11,811,594 | 3,576,467 61 |
| 1840 | 1,675,302 50 | 1,726,703 00 | 24,627 00 | 10,558,240 | 3,426,632 50 |
| 1841 | 1,091,597 50 | 1,132,750 00 | 15,973 67 | 8,811,968 | 2,240,321 17 |
| 1842 | 1,834,170 50 | 2,332,750 00 | 23,833 90 | 11,743,153 | 4,190,754 40 |
| 1843 | 8,108,797 50 | 3,834,750 00 | 24,283 20 | 14,640,582 | 11,967,830 70 |
| 1844 | 5,428,230 00 | 2,235,550 00 | 23,987 52 | 9,051,884 | 7,687,767 52 |
| 1845 | 3,756,447 50 | 1,873,200 00 | 38,948 04 | 11,806,196 | 5,668,595 54 |
| 1846 | 4,034,177 50 | 2,558,580 00 | 41,208 00 | 10,133,515 | 6,633,965 50 |
| | 52,847,543 00 | 69,052,014 90 | 1,083,764 52 | 315,239,606 | 122,480,322 42 |

# COMMERCIAL STATISTICS.

## TABLE OF DOMESTIC EXPORTS OF THE UNITED STATES,

FOR THE FISCAL YEAR ENDING JUNE 30TH, 1846.

THE annual report on Commerce and Navigation, prepared at the United States Treasury Department, and published by order of Congress each year, gives a summary table of the value of our domestic exports, but omits the quantity. That table we published in the last number of the Merchants' Magazine. We now compile from the general statement of goods, wares, and merchandise of the growth, produce, and manufacture of the United States, exported to each foreign country, a more minute statement of the articles exported, which shows the quantity as well as the value of each article, when given in the general statement. The quantity of our exports is of more importance, as matter of information to the merchant, than the mere official value; and we would submit to the department at Washington, in making up the summary statement of domestic exports, hereafter, the importance of annexing the quantities as well as the values of the same. The statements which we have thus compressed in the following table, are spread over 40 pages of the official report:—

| | Quantity. | Value. |
|---|---|---|
| Fish, dried.quint'ls | 277,401 | $699,559 |
| Fish, pickled..bbls. | 56,431 | 230,495 |
| Fish.....kegs | 1,258 | |
| Oil, sperm..galls. | 772,019 | 697,570 |
| Oil, whale, &c.... | 2,652,874 | 946,298 |
| Whalebone...lbs. | 1,697,892 | 583,870 |
| Spermaceti candls | 1,083,839 | 295,606 |
| Staves & head'g.M. | 28,800 | 2,319,443 |
| Shingles..... | 42,093 | |
| Boards, plank, & scantling.M. feet | 100,119 | |
| Hewn timber..tons | 67,779 | |
| Other lumber.... | ..... | 324,979 |
| Masts and spars.. | ..... | 21,682 |
| Oak b'k & oth. dye | ..... | 61,282 |
| All manuf. of wood | ..... | 957,790 |
| Tar & pitch...bbls. | 65,805 | 1,085,712 |
| Rosin & turp'ntine | 351,914 | |
| Ashes, pt.& pl.tons | 9,800 | 735,689 |
| Skins and furs... | ..... | 1,063,009 |
| Ginseng.....lbs. | 567,297 | 237,562 |
| Beef.....bbls. | 149,228 | 2,474,208 |
| Tallow.....lbs. | 10,435,697 | |
| Hides.....No. | 143,323 | |
| Horned cattle.... | 3,101 | 3,883,884 |
| Pork .....bbls. | 190,422 | |
| Hams & bacon.lbs. | 3,006,630 | |
| Lard.....lbs. | 21,843,164 | |
| Hogs .....No. | 7,437 | |
| Butter .....lbs. | 3,436,660 | 1,063,087 |
| Cheese.....lbs. | 8,675,390 | |
| Horses&mulesNo. | 6,102 | 382,382 |
| Sheep..... | 9,254 | 30,303 |
| Wheat....bushels | 1,613,795 | 1,681,975 |
| Flour .....bbls. | 2,289,476 | 11,663,669 |
| Indian corn.bush. | 1,826,068 | 1,186,662 |
| Indian meal.bbls. | 298,799 | 945,081 |
| Rye meal..... | 98,530 | 138,110 |
| Rye, oats, &c.... | ..... | 638,221 |

| | Quantity. | Value. |
|---|---|---|
| Ship-bread..bbls. | 114,792 | $366,688 |
| Biscuit.....kegs | 25,505 | |
| Potatoes....bush. | 125,150 | 69,948 |
| Apples.....bbls. | 30,903 | 69,253 |
| Rice.....tierces | 124,007 | 2,564,991 |
| Indigo .....lbs. | 90 | 90 |
| Cotton, Sea Isl'nd. | 9,388,533 | 42,767,341 |
| Other cotton....538,169,522 | | |
| Wool..... | 668,386 | 203,999 |
| Tobacco....hhds. | 147,998 | 8,478,270 |
| Flaxseed....bush. | 107,959 | 165,438 |
| Hops. .....lbs. | 287,754 | 41,692 |
| Wax..... | 542,250 | 162 790 |
| Household furnit'e | ..... | 317,407 |
| Coaches, &c..... | ..... | 87,712 |
| Hats..... | ..... | 74,722 |
| Saddlery..... | ..... | 24,857 |
| Beer, porter,ale&c | ..... | 67,785 |
| Spirits fr.gr'n.gals. | 257,496 | 73,716 |
| Leather .....lbs. | 1,326,251 | 346,516 |
| Boots.....pairs | 17,183 | |
| Leather shoes.... | 121,139 | |
| Tallow candl'a.lbs. | 3,718,714 | 630,041 |
| Soap..... | 3,161,910 | |
| Snuff ..... | 52,458 | 695,914 |
| Tobacco manufac. | 6,854,856 | |
| Linseed oil.galls. | 8,656 | 159,915 |
| Spirits turpentine | 329,570 | |
| Sugar, brown.lbs. | 109,295 | 7,235 |
| Cables, &c..cwts. | 5,860 | 63,775 |
| Lead.....lbs. | 16,823,760 | 614,518 |
| Iron, pig.....tons | 198 | 122,225 |
| Iron, bar.... ... | 115 | |
| Iron, nails....lbs. | 2,439,336 | |
| Iron, castings.... | ..... | 107,905 |
| Manufac's of iron. | ..... | 921,652 |
| Sp. fr. molas.galls. | 850,462 | 268,652 |
| Sugar, refined.lbs. | 4,123,512 | 392,312 |
| Chocolate..... | 19,182 | 2,177 |

TABLE—CONTINUED.

| | Quantity. | Value. | | Quantity. | Value. |
|---|---|---|---|---|---|
| Gunpowder ..... | 1,436,206 | $140,879 | Books and maps..... | ..... | $63,567 |
| Manuf. cop. & brass. | ..... | 62,088 | Paper & stationery.. | ..... | 124,597 |
| Medicinal drugs... | ..... | 200,505 | Paints and varnish .. | ..... | 52,182 |
| Cot. goods, pr. & col. | ..... | 380,549 | Vinegar ..... | ..... | 17,489 |
| " white .. | ..... | 1,978,331 | Earth. & stoneware. | ..... | 6,521 |
| " nankeen. | ..... | 848,989 | Glass manufactures. | ..... | 90,860 |
| " twist, &c. | ..... | 81,813 | Tin manufactures ... | ..... | 8,902 |
| " all other | ..... | 255,799 | Pewter & lead man. | ..... | 10,278 |
| Flax manufactures. | ..... | 12,129 | Marble & stone " . | ..... | 14,234 |
| Wearing apparel.. | ..... | 45,140 | Gold & silver " . | ..... | 3,660 |
| Combs and buttons | ..... | 35,945 | Gold & silver coin.. | ..... | 423,851 |
| Brushes ..... | ..... | 3,100 | Art. flowers & jewel. | ..... | 24,420 |
| Billiard tables..... | ..... | 1,583 | Molasses..... | ..... | 1,581 |
| Umbrellas, &c..... | ..... | 2,477 | Trunks..... | ..... | 10,613 |
| Leath. & mor. skins. | ..... | 26,667 | Brick and lime..... | ..... | 12,578 |
| Fire-eng. apparatus | ..... | 9,802 | Domestic salt...bush. | 117,627 | 30,520 |
| Printing materials.. | ..... | 43,792 | Manufactures..... | ..... | 2,869,869 |
| Musical instruments | ..... | 25,325 | | | |

## PRO-FORMA SALES OF FLOUR.

We are indebted to a highly respectable merchant of Boston, for the accompanying "bona fide" abstract from the books of a commission house:—

Pro-forma Account Sales 13,489 bbls. Superfine Flour, shipped by ———, St. Joseph County, Michigan, to Messrs. ——— & ———, Boston, during the season of Lake Navigation, for the year 1846.

| | | Bbls. | Price. | Proceeds. |
|---|---|---|---|---|
| 1846—May 28 | Sold, (first received)..... | 200 | $4 50 | $900 00 |
| 29 | " ..... | 694 | 4 65 | 3,227 10 |
| June... | " (average sales for month)..... | 50 | 4 25 | 212 50 |
| July... | " " " " ..... | 50 | 4 31½ | 209 37 |
| August. | " " " " ..... | 50 | 4 12½ | 206 25 |
| Sept. 11 | " ..... | 400 | 4 62½ | 1,850 00 |
| 12 | " ..... | 200 | 4 75 | 950 00 |
| 14 | " ..... | 1,000 | 4 62½ | 4,625 00 |
| 14 | " ..... | 1,300 | 4 75 | 6,175 00 |
| 15 | " ..... | 1,500 | 4 87½ | 7,312 50 |
| 16 | " ("bad," sour)..... | 100 | 4 25 | 425 00 |
| 22 | " ..... | 3,000 | 4 87½ | 14,625 00 |
| 24 | " ("bad," sour)..... | 50. | 4 62½ | 231 25 |
| 29 | " ..... | 200 | 5 12½ | 1,025 00 |
| Oct. 10 | " ..... | 200 | 5 50 | 1,100 00 |
| 11 | " ..... | 100 | 5 62½ | 562 50 |
| 14 | " ("bad," sour)..... | 590 | 4 81½ | 2,839 37 |
| 25 | " ..... | 100 | 6 25 | 625 00 |
| Nov. 12 | " ..... | 50 | 6 18¾ | 309 37 |
| 25 | " ..... | 100 | 5 25 | 525 00 |
| 30 | " ..... | 1,000 | 5 40 | 5,400 00 |
| Dec'r... | " (average sales for month) .... | 550 | 5 50 | 3,025 00 |
| 1847—January | " " " " .... | 660 | 5 62½ | 3,712 50 |
| Febru'y. | " " " " .... | 1,322 | 7 25 | 9,584 50 |
| | Lost in transitu..... | 28 | .... | ..... |
| | | 13,489 | | $69,657 21 |

CHARGES.

| | | Bbls. | Rate. | Amount. |
|---|---|---|---|---|
| | Freight on St. Joseph River to St. Joseph by arks, keel-boats, and steamboats... | 13,489 | 31½ | 4,215 31 |
| Apr. 28 | Freight from St. Joseph to E. Albany, per contract with forwarders to Buffalo, per vessel..... | 694 | 1 20 | 832 80 |

| | | | | | | |
|---|---|---|---|---|---|---|
| May 28 | Freight per contract, do., per steamboats and propellers | 3,278 | 1 15 | 3,769 70 | | |
| June 11 | Freight from St. Joseph to Chicago, at 18¾ cts. per bbl.; thence to Buffalo, per steamer Oregon, at 80 cts. | 2,000 | 48¾ | 975 00 | | |
| May 22 | Fr'ght per brig L. C. Blossom, to Buffalo. | 131 | 31½ | 40 94 | | |
| July 20 | Freight per contract from St. Joseph to East Albany | 3,704 | 1 10 | 4,074 40 | | |
| 21 | Fr'ght per propel. California to Buffalo.. | 121 | 31½ | 37 81 | | |
| Aug. 20 | " " St. Joseph " | 96 | 25 | 24 00 | | |
| Sep. 20 | " " Pocahontas " | 500 | 25 | 125 00 | | |
| Oct. 6 | " " St. Joseph " | 331 | 50 | 165 50 | | |
| Nov. 3 | " " " " | 1,000 | 1 00 | 1,000 00 | | |
| 16 | " per steamer H. Hudson " | 669 | 75 | 501 75 | | |
| 19 | " per propeller Phœnix " | 410 | 87½ | 358 75 | | |
| 21 | " per steamer A. D. Patchin " | 555 | 62½ | 346 87 | | |
| | | | | | | 16,467 83 |
| June 12 | Canal freight, 131 bbls. pr L.C.Blossom to E.Alb'y, a 62½ | | | 81 87 | | |
| July 10 | " 1,000 pr Oregon " a 55 | | | 550 00 | | |
| 10 | " 1,000 " " a 53 | | | 530 00 | | |
| Aug. 20 | " 217 pr Calif. & St. Jos. " a 58 | | | 125 86 | | |
| Oct. 14 | " 500 pr Pocahontas " a 58 | | | 290 00 | | |
| Nov. 6 | " 331 pr St. Joseph " a 88 | | | 291 28 | | |
| 26 | " 1,000 " " a 1 25 | | | 1,250 00 | | |
| 1847. | | | | | | 3,119 01 |
| Jan'y & Feb'y, railroad from Buffalo to East Albany, on lots per H. Hudson, Phœnix, and Patchin, arrived after closing of canal, 1,634 bbls., | | | | | | |
| 1846. | a $1 15 per bbl. | | | | | 1,879 10 |
| May 20 | Freight from Albany to Boston, per schooner Utica, 219 bbls., a 22 cts | | | 48 18 | | |
| | Wharfage, 2 cts., drayage, 3 cts., marine ins., 2½ cts. p. bbl.. | | | 16 42 | | |
| | | | | | | 64 60 |
| | Railroad freight from East Albany to Boston, from May to Oct. 31, on 10,552 bbls., a 30 cts. per bbl | | | | | 3,165 60 |
| | Freight per railroad from East Albany to Boston, during Nov., Dec., and Jan., 1,419 bbls., a 35 cts. per bbl | | | | | 496 65 |
| | Freight per do., in February, 1,299 bbls., a 40 cents | | | | | 519 60 |
| | Forwarding charges at St. Joseph, 6¼ cts. on 13,489 bbls | | | | | 843 06 |
| | " " Buffalo, 3 cts. on 5,813 bbls | | | | | 174 39 |
| | Lake and river insurance, per special agreement, for the season, on flour, valued at $3 75 per bbl, at 2 per cent | | | | | 1,011 66 |
| | Inspection, at 1 cent per bbl | | | | | 184 89 |
| | Cooperage and incidental expenses at St. Joseph, Buffalo, and East Albany | | | | | 140 92 |
| | Cooperage, labor, truckage, storage, advertising, postage, fire-insurance, brokerage, interest on charges, &c | | | | | 1,308 42 |
| | Commissions on sales, 2½ per cent on $69,657 21 | | | | | 1,741 42 |
| | Total charges | | | | | 31,067 16 |
| | Gross proceeds | | | $69,657 21 | | |
| | Charges | | | 31,067 16 | | |
| | Nett proceeds | | | $38,590 05 | | |

Boston, March 15, 1847. E. & O. E.

The usual rate of flouring, in the remote West, is to turn out a barrel of superfine flour for every 5½ bushels of wheat delivered at the mill. It takes 4½ bushels to make a barrel, the extra bushel paying for the barrel and milling. These sales would therefore nett the farmer or purchaser of wheat, 52 cents per bushel. The State of New York charges canal tolls, 31½ cents per bbl., on all flour transported over their railroads from Buffalo to Albany. The Western Railroad receives freight, advances charges, and collects in Boston, without forwarding or other charge than their regular freight.

## IMPORTATIONS OF CORN INTO ENGLAND.

A return was issued on the 8th of April, 1847, pursuant to an order of the House of Commons, showing the number of ships laden with foreign corn, entered inwards at the ports of the United Kingdom, between the 5th day of January, 1846, and the 5th day of January, 1847. The total number of ships laden with foreign corn entered inwards in the year 1846, at the ports of the United Kingdom, was 4,697.

| | | | |
|---|---|---|---|
| United Kingdom | 1,770 | Holland | 179 |
| Russian | 20 | France | 53 |
| Swedish | 62 | Italian | 34 |
| Danish | 1,022 | Austrian | 73 |
| Prussian | 352 | United States | 434 |
| German States | 677 | | |

The following were the quantities imported in British ships:—

| | | | |
|---|---|---|---|
| Wheat....qrs. | 663,664 | Maize and buckwheat....qrs. | 47,118 |
| Barley | 70,865 | Flour....cwt. | 815,275 |
| Oats | 321,266 | Oat meal | 1,393 |
| Beans and peas | 249,599 | Indian corn meal | 170 |

There were imported in foreign ships:—

| | | | |
|---|---|---|---|
| Wheat....qrs. | 726,220 | Rye....qrs. | 70 |
| Barley | 287,579 | Maize and buckwheat | 73,765 |
| Oats | 452,832 | Flour....cwts. | 1,936,783 |
| Beans and peas | 204,111 | Indian corn and meal | 2,165 |

## COMMERCE OF RUSSIA.

The Minister of Commerce of Russia published at St. Petersburg, on 1st December, the returns of the trade of the empire in 1845, from which we extract the following:

"The amount of foreign exports, including those of Poland and Finland, was 92,567,345 silver roubles (249,857,840f.) That of imports was 83,161,372 silver roubles (285,806,733f.) There was a diminution in a great number of the principal articles of export as compared with the returns of the two preceding years, owing, it was supposed, to the failure of the crops in several of the western provinces of the empire. The extensive exchange trade carried on at Kiachta between Russia and China was more considerable in 1845 than in 1844. The general amount of the commercial transactions on that point had risen to 13,622,000 silver roubles. Tea is the principal article supplied by China. No less than 100,000 boxes (containing from 45 lbs. to 50 lbs. each) of the best quality were imported in 1846, besides 40,000 boxes of tea in bricks, which is a sort of paste formed of the coarsest part of the plant, of which the Tartar population of Russia make a sort of soup, with the addition of salt, pepper, and milk. The Russian goods imported by land into China consist mostly of cloths and furs. The articles supplied by Russia to her transcaucasian provinces, are sugar, dye substances, and spirituous liquors. The export of raw hides was very great, particularly to Asia, from which the chief articles of import were wheat, cotton goods, dye substances, tobacco, and fruit. There entered in 1845, into the Russian harbors, 5,926 vessels, 5,940 cleared out. The customs produced 31,958,083 silver roubles, or 1,186,395 less than in 1844. The result is attributed to the very considerable imports of 1844, which caused a diminution in the orders of the following year."

## EXPORTS FROM ODESSA, RUSSIA.

| Years. | Tallow, pooda. | Wool, pooda. | Wheat, chetw. | Rye, chetw. | Barley, chetw. | Oats, chetw. | Indian corn, chetw. | Linseed, chetw. |
|---|---|---|---|---|---|---|---|---|
| 1840.. | 391,957 | 97,769 | 789,007 | 2,510 | 9,262 | 39,861 | ..... | 173,577 |
| 1841.. | 373,303 | 130,042 | 720,372 | .... | 802 | 10,894 | ..... | 84,172 |
| 1842.. | 582,735 | 137,573 | 863,422 | .... | .... | ..... | ..... | 66,522 |
| 1843.. | 314,444 | 152,625 | 1,170,245 | 32,328 | 14 | 4,019 | ..... | 109,081 |
| 1844.. | 345,923 | 288,916 | 1,263,036 | 86,892 | 18,071 | 13,680 | ..... | 171,254 |
| 1845.. | 189,322 | 220,056 | 1,777,087 | 64,953 | 5,701 | 3 | 28,748 | 135,943 |
| 1846.. | 322,631 | 130,763 | 1,955,316 | 251,526 | 281 | 300 | 36,147 | 114,201 |

# JOURNAL OF MINING AND MANUFACTURES.

## THE GOLD MINES IN OREL AND SIBERIA.

FROM OFFICIAL SOURCES IN THE JOURNAL OF ST. PETERSBURGH, OF FEBRUARY 6, 1847.

Of the quantity of gold worked in 1846 in the Crown mines, and in the mines of Orel and Siberia, the mint has received to this date 1,397 poods, 15 liv, 13 zoll, to. which must be added 325 poods, 14 liv, 74 zoll, expected during the winter; thereby making the total production of gold in 1846 amount to 1,722 poods, 29 liv, 87 zoll.

Formerly, gold was only worked in the district of the mines of Catharineburgh, belonging to the Crown; in the mines of Berezoff, and in the district of the mines of Kolyvano, Voskressensk, and of Nertchinsk, and was extracted from siver which was worked in those mines. The whole quantity extracted annually, amounted to but 34 to 40 poods. In 1819, some veins of golden sand were discovered in Orel. Since then, the production of this precious metal has increased in the following proportions:—

| Years. | Poods. | liv. | zoll. | Years. | Poods. | liv. | zoll. |
|---|---|---|---|---|---|---|---|
| 1819 ..... | 40 | 9 | 55 | 1825 ..... | 257 | 12 | 54 |
| 1820 ..... | 44 | 3 | 00 | 1826 ..... | 257 | 25 | 15 |
| 1821 ..... | 52 | 24 | 85 | 1827 ..... | 307 | 30 | 95 |
| 1822 ..... | 79 | 21 | 36 | 1828 ..... | 317 | 39 | 44 |
| 1823 ..... | 125 | 19 | 79 | | | | |
| 1824 ..... | 228 | 13 | 38 | Total..... | 1,711 | 0 | 21 |

It was in 1829 that some veins of golden sand were also discovered in Siberia. At first, the working of it was not very productive; but after a while, and more especially during the last six years, the results have been very brilliant, as the following figures will prove:—

| Years. | Poods. | liv. | zoll. | Years. | Poods. | liv. | zoll. |
|---|---|---|---|---|---|---|---|
| 1829 ..... | 314 | 31 | 1 | 1839..... | 525 | 6 | 38 |
| 1830..... | 378 | 15 | 79 | 1840..... | 585 | 15 | 60 |
| 1831..... ... | 396 | 29 | 37 | 1841..... | 681 | 20 | 34 |
| 1832..... | 410 | 8 | 61 | 1842..... | 950 | 26 | 68 |
| 1833..... | 408 | 22 | 71 | 1843..... | 1,288 | 2 | 60 |
| 1834..... | 406 | 4 | 64 | 1844..... | 1,341 | 25 | 60 |
| 1835..... | 413 | 1 | 8 | 1845..... | 1,386 | 6 | 41 |
| 1836..... | 426 | 3 | 74 | 1846..... | 1,722 | 29 | 87 |
| 1837..... | 469 | 20 | 75 | | | | |
| 1838..... | 524 | 36 | 69 | Total..... | 12,624 | 28 | 24 |

Thus, since the discovery of the golden sand—that is to say, since 1819, the working of the gold, both in Orel and Siberia, has produced 14,335 poods, 28 liv, 45 zoll. of this precious metal, of which the Crown mines in Orel have contributed 2,924 poods, 24 liv, 32 zoll; those in Siberia, 1,293 poods, 7 liv, 28 zoll; the private mines in Orel, 4,219 poods, 39 liv, 70 zoll; and those in Siberia, 5,897 poods, 37 liv, 11 zoll. The produce of the year 1846, which, as before stated, amounts to 1,722 poods, 29 liv, 87 zoll, forms more than a tenth of the whole quantity of gold worked since 1819, and surpasses, by 336 poods, 23 liv, 46 zoll, the result of the working of this metal in 1845.

## COAL AND IRON TRADE OF THE OHIO VALLEY.

In the Merchants' Magazine for May, we published an article on this subject, prepared by Hon. Charles Whittlesey, of Cleveland, Ohio; we have since received from that gentleman an additional note to that article, which we here subjoin:—

There are now in operation in the northeastern part of Mahoning County, Ohio, four furnaces that use raw coal alone.

That of Wilkenson & Co., at Lowell, is not in blast, having stopped before navigation opened for want of coal. Their stack is 12 feet across the boshes; had 3 tuyeres, now preparing for 6 tuyeres; is hot blast, and reports an average of five (5) tons a day, soft metal, for a blast of four months. Ore yields about 30 per cent, requiring 3 to 3½ tons of coal per ton of iron.

Warren & Co.'s furnace, Youngstown, 12 feet at the boshes; cold blast, 3 tuyeres; makes soft iron, 4 tons of coal to 1 of iron; ore, 25 per cent; weight of flux equal to ore; runs 4 to 5 tons a day.

Woods & Co., Youngstown, cold blast; 11 feet 8 inches bosh, 8 feet at the trunnel-head, in blast but a short time, and not yet (May 1st) regulated.

Redman & Co., Mill Creek, (an old charcoal furnace,) 10 feet bosh, 8 feet at trunnel-head, and small for 10 feet down; runs 3 to 3½ tons per day; ore, 45 per cent; 4 tons coal per ton of iron, including the fuel for engine; cold blast; metal soft; 2 tuyeres. There is a rolling-mill and nail machines at Youngstown, which works the pig of these furnaces.

## CHEMISTRY APPLIED TO ARTS AND MANUFACTURES.

### METHOD OF DETECTING COTTON IN LINEN.

The following paper on the Detection of Cotton in Linen, translated from Liebig's *Annalen*, of February, 1847, was communicated for that publication by G. C. Kindt a distinguished German chemist, and will doubtless prove useful and interesting to the readers of the Merchants' Magazine:—

This subject has frequently engaged the attention of commercial and scientific men; many experiments have been made in order to detect cotton thread in linen; many processes have been recommended, but none have hitherto proved satisfactory. I was therefore much surprised when a stranger, a few weeks ago, showed me a sample of linen from the one-half of which all the cotton filaments had been eaten away. He had obtained it in Hamburgh, and asked me whether I could give him a process for effecting this purpose. Now since, as far as I am aware, nothing has been published on this subject, and it is of very general interest, I consider it a duty to communicate the results of my experiments. I had already observed, in experimenting with explosive cotton, flax, &c., that these two substances behave somewhat differently towards concentrated acids; and although it has long been known that strong sulphuric acid converts all vegetable fibre into gum, and when the action is continued for a longer period, into sugar, I found that cotton was metamorphosed much more rapidly by the sulphuric acid than flax. It is, therefore, by means of concentrated sulphuric acid that cotton may be removed from linen when mixed with it; and this object may be obtained by the following process:—

The sample to be examined must be freed as perfectly as possible from all dressing by repeated washing with hot rain or river water, boiling for some length of time, and subsequent rinsing in the same water; and I may expressly observe, that its entire removal is requisite for the experiment to succeed. When it has been well dried, the sample is dipped for about half its length into common oil of vitriol, and kept there for about half a minute to two minutes, according to the strength of the tissue. The immersed portion is seen to become transparent. It is now placed in water, which dissolves out the gummy mass produced from the cotton; this solution may be expedited by a gentle rubbing of the fingers; but since it is not easy to remove the whole of the acid by repeated washing in fresh water, it is advisable to immerse the sample for a few instants in spirits of hartshorn, (purified potash or soda have just the same effect,) and then to wash it again with water. After it has been freed from the greater portion of the moisture by gentle pressure between blotting-paper, it is dried. If it contained cotton, the cotton threads are found to be wanting in that portion which had been immersed in the acid; and by counting the threads of the two portions of the sample, its quantity may be very readily estimated.

If the sample has been allowed to remain too long in sulphuric acid, the linen threads likewise become brittle, or even eaten away; if it were not left a sufficient time in it, only a portion of the cotton threads have been removed; to make this sample useful, it must be washed, dried, and the immersion in the acid repeated. When the tissue under examination consists of pure linen, the portion immersed in the acid likewise becomes transparent, but more slowly and in a uniform manner; whereas, in the mixed textures, the cotton threads are already perfectly transparent, while the linen threads still continue white and opaque. The sulphuric acid acts upon the flax threads of pure linen, and the sample is

even somewhat transparent after drying as far as the acid acted upon it, but all the threads in the sample can be seen in their whole course.

Cotton stuffs containing no linen dissolve quickly and entirely in the acid; or if left but one instant in it, becomes so brittle and gummy that no one will fail to recognize it as cotton when treated in the above manner.

## INFLUENCE OF MANUFACTURES ON POPULATION.

An interesting statistical work has just appeared from the Boston press. It is by Dr. Jesse Chickering, and is designed "to exhibit the increase of the population of Massachusetts, and the *changes* which have taken place in the number and proportion of the inhabitants in the several parts of the commonwealth, during the period of 75 years, from 1765 to 1840." From a notice of this work in the *Boston Journal*, we make the following extract:—

"The population of the State in 1796, was 378,787; in 1800, it was 422,845, an increase of 11,631, 33 per cent; in 1810, the population was 472,040, an increase of 11,684, 28 per cent; in 1820, it was 523,287, an increase of 10,856, 49 per cent; in 1830, it was 610,408, an increase of 16,648, 79 per cent; in 1840, it was 737,700, an increase of 20,853, 59 per cent. The increase of population during the first two periods of ten years each, was about equal; and the increase during the third was much less than during the two first. During the first periods above mentioned, the increase may be attributed to the natural growth of a comparatively recently settled State. From 1810 to 1820, the best lands have been settled and improved by agriculturists; the increase was much slower proportionably, and there was much emigration to other and wider fields of enterprise.

"About the commencement of the year 1820, the manufacturing interest began to open new branches of industry for the surplus population, and the increase of manufactures from 1820 to 1840, greatly checked the emigration to other States. That the great increase in population is owing to the increase of manufactures, is abundantly shown by the table exhibiting the increase of population in each of the several towns. Those towns which are exclusively agricultural have remained almost stationary, while the large increase in the population of the State has been mainly in the manufacturing towns."

## EXHIBITION OF CHINESE MANUFACTURES IN FRANCE.

We copy from the "Overland Mail," the following interesting account of the French commercial embassy to China:—

FRENCH INDUSTRY.—CHINESE EXHIBITION.—It will not be denied that, however restrictive and retrograde the commercial system of France, the government bestows the greatest care and anxiety in availing itself of every occasion practically to improve and develop national industry. Thus, when an embassy to China was resolved upon, some two years ago, the chambers of commerce throughout France were invited to select persons competently versed in the special branches of industry in each locality, to accompany the mission, carrying with them specimens of every description of fabric or elaborated commodity produced in the districts they were to represent, so as, by trying the tastes of the Chinese markets, and those also of the coast and islands of the Indian Ocean, and placing their wares in competition with other similar foreign products offered in those parts, it might be ascertained what were the peculiar descriptions of French products for which an outlet could be most advantageously found. The instructions of the government also embraced the propriety of an investigation into the indigenuos materials, natural or manufactured, of China and the other countries visited, which might be suitable for home consumption, and constitute a desirable basis for the creation or enlargement of interchanges. This diplomatic commercial expedition is now on its return from its lengthened voyage of industrial discovery. M. Itter, one of the commercial delegates, has, indeed, anticipated the arrival of his colleagues, bringing with him a vast variety of objects, classified and collected with the greatest diligence and discrimination; and the Minister of Commerce has opened a spacious room in his hotel for the public exhibition of these productions of Chinese ingenuity and industry. It would be well that such an opportunity should not be lost by the manufacturers of this country, so many of whom are, indeed, in the habit periodically of visiting France and other parts of the continent, to consult tastes and changes, to watch improvements, and compare notes of progress. In the relation given in the

Paris papers of this exhibition, it is noticed that there are yarns and fabrics of silk; cotton of flax, above all, of a quality to render desperate our manufacture of fine goods. There is the *lo-ma-tsing-ma*, whose fineness and whiteness would defy our beautiful cambrics; by the side of the fabric there is the yarn of which it is made, with the raw material which gives the thread; for M. Itter has had the happy idea of bringing us the precious seeds, which may be easily cultivated in our province, or in our Algeria, and thus endow us with a new source of wealth. Then there are specimens of Chinese pottery, porcelain, paper, parasols, razors, fishing tackle, illuminated window-blinds caps, and hats; coppers, enamelled, imitating porcelain; elegant bricks, hollowed and sculptured outside, which, it is observed, would make "charming balustrades;" religious paintings, of a remarkable finish and velvet softness; lanterns, in sculptured wood, of exquisite design and ornament; sleeping couch, in bamboo, of excellent workmanship, and highly ornamented, the cheap price of which, (80 to 85 francs,) is said to be "truly inexplicable." It is evidently a collection worthy the notice of our manufacturers.

## MANUFACTURE OF BRISTLES AT CINCINNATI.

The Cincinnati Signal furnishes the following particulars of bristle-dressing in that city; a branch of business by no means insignificant:—

"The business of bristle-dressing is carried on in Cincinnati at three different establishments—Rutherford's, Whitaker's, and Zuter's—and gives, (says Mr. Cist,) occupation to more than one hundred hands, whose labors it engages during a part of the year, affording higher wages, or rather netting to the laborer more profits than almost any other journeyman employment in Cincinnati. The bristles are sent to our eastern cities, where they are assorted for various uses. The market value there, of our season's supply, is thirty-five thousand dollars.

"This appears a small business, but it becomes of interest for several reasons. It is, in the first place, a fair specimen of a variety of petty operations here, whose aggregate of value in export is more than a million of dollars, but whose importance is further enhanced by the fact, that nearly the entire value is conferred on it by labor. In this particular employment, as in the manufacture of hoofs, refuse bones, &c., of hogs, an advantage is afforded to this city which has built it up into the great hog market of the West. The manufacture for foreign consumption of bristles and prussiate of potash, and other articles made of hog-offal, enables the pork-packer to give 7 to 10 per cent more for hogs here than is given elsewhere at points where the purchaser is not prepared to save or use up these materials.

"The business has more than doubled since 1840; the number of hands then employed being 12, and the product of their labor being $16,000."

## ABOLITION OF DUTY ON IRON FOR SHIP-BUILDING IN FRANCE.

It is stated that the French government have resolved on recommending an abolition of the duties on the importation of iron and other articles destined for ships built for mercantile purposes. In the new Customs Bill, presented to the Chamber by the Minister of Finance, there is a clause which provides that iron in bars, copper, zinc, flax, and hemp, destined for the fabrication of objects serving in the construction or fitting out of French vessels of commerce, shall be admitted free of duty, on the condition that the employment of the said objects to the specified purposes shall be proved within one year. The same privilege to be accorded to sheet-iron and works in iron destined for the construction of iron vessels. Any infraction of such conditions will be punished by a fine, equal to four times the amount of the existing duty on such articles. This law does not touch either iron, steel, coal, or tools of any kind; neither does it afford relief to railways, or the many other branches of industry now suffering under the monopoly of the iron and coal-masters of France; but it is, nevertheless, a measure of vast importance.

## MANUFACTURE OF PAPER IN THE UNITED STATES.

From statistical documents presented before Congress, it appears that the capital employed in the manufacture of paper in the United States, is $18,000,000. The number of mills, 700; the annual product, $17,000,000; and the number of operatives employed, 100,000.

# NAUTICAL INTELLIGENCE.

## LOCH RYAN LIGHTHOUSE, SCOTLAND.

The following official notice has been published, by order of the Board of Commissioners of the Northern Lighthouses. It is dated Edinburgh, February 1st, 1847, and signed by Alexander Cunningham, Secretary of the Board, and is now transferred to the pages of the Merchants' Magazine, for the information of navigators:—

The commissioners of the Northern lighthouses hereby give notice, that the beacon erected in the year 1843, upon Cairn Ryan Point, within Loch Ryan, in the county of Wigtown, has been converted into a lighthouse, the light of which will be exhibited on the night of the 3d of March, 1847, and every night thereafter, from sunset to sunrise. The light is chiefly intended to open up the anchorage of Loch Ryan.

The following is a specification of the lighthouse and the appearance of the light, by Mr. Alan Stevenson, engineer to the commissioners:—

Loch Ryan lighthouse is situated upon Cairn Ryan Point, on the eastern shore of the loch, in N. lat. 54° 58′ 28″ and W. lon. 5° 1′ 47″. The light will be known to mariners as a fixed light of the natural appearance. The lantern, which is open from S. by W. ¼ W., round to N. ¼ E. in a westerly direction, is elevated 80 feet above the level of the sea; and the light will be seen at the distance of ten miles, and at lesser distances, according to the state of the atmosphere.

And the Commissioners hereby further give notice, that by virtue of a warrant from the Queen in Council, dated 19th December, 1846, the following tolls will be levied in respect to this light, viz.:—

For every British vessel, the same not belonging to her majesty, or being navigated wholly in ballast, and for every foreign vessel privileged to enter the ports of the United Kingdom, on paying the same duties as British vessels, which shall pass or derive benefit from the said light; that is, which shall arrive at or depart from any place or port within Loch Ryan:—

If the same shall not exceed fifty tons' burden, 6d.

And if the same exceed fifty tons, for each additional fifty tons, or part of fifty tons, a like toll of 6d.

And double the said respective tolls, for every foreign vessel sailing as aforesaid, and not privileged as aforesaid.

## NOTICE OF A ROCK OFF CAPE TENEZ.

This pointed and isolated rock is situated on the western extremity of Cape Tenez, a cable's length distant (120 fathoms.) On the rock itself there is one fathom and a half of water, and it is eight fathoms outside, as well as towards the land. The first charts of Gautier indicated a rock, marked by a cross, in this direction, without designating the soundings, but neither the last edition of the same charts, nor the more recent of Berau, make any mention of it. The instructions on the lateral navigation on the coast of Algeria, published by Captain Berau, do not mention this rock either, which he would evidently have marked if his soundings had indicated it. In all cases there is no danger to be feared for vessels that pass it more than a mile from Cape Tenez at any time.

## TUSCANY EXEMPTS CORN-LADEN VESSELS FROM DUES.

The following communication from the Tuscan Consul, has been addressed to W. Dobson, Esq., Secretary to Lloyd's:—

"In sequel of my communication to you of the 8th January last, I have now the honor to acquaint you that I have just received from his excellency the Governor of Leghorn, copies of two notifications issued on the 23d of last month, by the Tuscan government, exempting all vessels of whatever nation, laden with grain, pulse, or flour, and arriving in Leghorn or any other Tuscan port, between the 1st of March and the 30th of June next, from the payment of any other than the anchorage dues, to be levied on and after 1st March, by virtue of the former notification of the 27th October last.

## SANDS OFF YARMOUTH AND LOWESTOFT.

It has been found necessary, in consequence of the shifting of the sands, to alter the positions of the undermentioned buoys in the vicinity of Lowestoft and Yarmouth Roads. Notice is hereby given that the same have been altered accordingly, and that the buoys adverted to now lie with the marks and compass bearings hereunder specified, viz.:—

The West Inner Shoal Buoy (Lowestoft) has been moved to the eastward, and now lies in 14 feet low water spring tides, with Lowestoft Church spire just open of the east end of the New Chapel, N. N. W. ¼ W: Pakefield Church, just open south of the town, S. W. by W. ½ W. Stanford Light-vessel, E. by S. The Cockle Spit Buoy has been moved to the westward, and now lies in 9 fathoms water, with Winterton Light-house ¼ the distance between Winterton Church and a white house on the cliff, N. W. ¼ N; the turret of Yarmouth Chapel and the Factory Chimney in line S. W. by S.; Cockle Light-vessel, E. by S. ½ S.; Northeast Buoy, N.; Southwest Buoy, S. S. W. ¼ W. The Scroby Elbow Buoy has been moved a cable's length to the westward, and now lies in 11 fathoms water, with the Chimney of Lacon's Brewery, midway over the south wing of the Silk Factory, W. by N. ¼ N.; Southwest Scroby Buoy, S. ¼ W.; West Scroby Buoy, N. N. E. ½ E. The West Scroby Buoy has been moved 1½ cable's length eastward, and now lies in 10 fathoms water, with the chancel end of Caistor Church touching the west end of a red-tiled boathouse on Caistor Beach, N. W. ¼ N.; Nelson's Monument, its apparent length open eastward of Gorlestone Church, S. W. ¼ W.; Elbow Buoy, S. S. W. ¼ W.; Middle Buoy, N. N. E. ¼ E.

## BEACONS ON THE WESTERN COAST OF SLESWICK.

The following information has been received at the Department of State, at Washington, from the legation of the United States at Copenhagen, and is published in the Merchants' Magazine for the benefit of Mariners:—

In consequence of the announcement of the Royal Chamber of Customs and Commerce, dated 28th February, 1846, it is hereby made known that, in disposing and locating the sea-marks in the approaching spring, in the inland waters on the western coast of Sleswick, the floating white beacons to the larboard of vessels bound inward, the upper part of which has hitherto been shaped in form of a cross, will now, in place thereof, be provided with wicker baskets painted white.

Royal Chambers of Customs and Commerce for the Western Coast of the Duchies of Sleswick and Holstein. DONNER.

*Gluckstadt, February* 1, 1847.

## LIGHT ON CAPE FREHEL

Notice is hereby given, that from the 1st of May, 1847, the revolving light on Cape Frehel, in lat. 48° 41′ 5″ north; long. 2° 19′ 2″ west of Greenwich, is replaced by a new light, at a distance of 38 yards south, 60° east (true) from the Old Tower. The flashes of the new light succeed each other at intervals of 30 seconds, instead of 2½ minutes; but in ordinary weather the light does not disappear totally, within the distance of ten miles. The lantern is elevated 259 feet above the sea, at high water, and is seen, in clear weather, 22 miles.

## COAST OF BRAZIL.—FIXED LIGHT OFF CEARA.

Notice has been received by her majesty's government, that on the 1st of February, 1847, a fixed light was to be established at Ceara, on the northern coast of Brazil. The lighthouse stands on Mucuripe Point, on the eastern side of the Bay of Ceara, in lat. 3° 41′ 10″ south; and lon. 38° 35′ 9′ west of Greenwich,* and being 87 feet above the level of the sea, may be seen at the distance of 10 miles.

* In Baron Roussin's "Survey of the Coast of Brazil," and in the English charts this point is placed in 3° 41′ 50″ south, and 38° 30′ 15″ west.

# MERCANTILE MISCELLANIES.

## AN UNFORTUNATE SUBSCRIBER TO OUR MAGAZINE.

ENCLOSED in the letter which we publish below, we received a draft on a house in New York for $25 for 5 years' subscription to the Merchants' Magazine. We are not surprised that our friend has come to the determination to discontinue the work after such a series of misfortunes. Four times, it will be seen, the writer forwarded funds for the liquidation of our demand; and four times, either from the neglect, failure, or the death of the parties entrusted with the matter, the funds were misapplied. Had the writer adopted the course of remitting a draft, as in this instance, all would have been right. We hope the experience of the writer will be of service to others, and induce them to adopt the only sure course—that of remitting their subscriptions direct;—

"FREEMAN HUNT, Esq. *St. Louis*, May 6, 1847.

"Herewith I hand you enclosed 'check' No. 20,340, L. A. Benoist & Co., on Messrs. Corning & Co., for twenty five ($25) dollars, payable at sight. Please apply the amount in payment of my subscription to 'Hunt's Merchants' Magazine,' from July 1st, 1842, to July 1st, 1847, and forward your receipt, and *discontinue* it at the expiration of the current volume, ending with the number for June next.

"I do not discontinue my subscription from any dissatisfaction with the work—the numbers are always welcome and interesting visitors; but I have been peculiarly unfortunate in the matter of my payments. Twice I sent to friends in New York $5 each—they omitted to attend to the matter, and afterwards *failed*, and thus that went. Subsequently I sent $10 by a friend, requesting him to call on the others to whom I had sent, and get their receipts from you, or the money back, and pay you up in full. This gentleman was taken sick, and died on the way, and that was lost.

"Late in March I sent drafts to New York to make sundry payments—among them the amount due you. Owing to the non-payment of one of the drafts, as I learn by letter to-day, your account was not paid. I now take a sure course, by sending direct to you."

## DEFERENTIAL DUTIES.

TRANS. FROM THE FRENCH OF M. FREDERIC BASTIAT, MEMBER OF THE INSTITUTE OF FRANCE.

A poor husbandman of the Gironde had raised a vine with great care. After much anxiety and labor he produced a cask of wine, and in the satisfaction which he felt, no longer remembered that he had earned it by the sweat of his brow.

"I will sell it," he said to his wife, "and with the proceeds will buy the yarn with which you can make our daughter's *trousseau*" The good countryman went to the town, where he met a Belgian and an Englishman. The Belgian said to him "Give me your cask of wine, and in exchange I will give you fifteen packets of yarn." The Englishman said, "Give me your wine, and I will give you twenty packets of yarn, for we English spin cheaper than the Belgians." But a custom-house officer who was present, objected. "My fine fellow," said he, "exchange with the Belgian, if you please; but it is my business to prevent your exchanging with the Englishman." "What," said the countryman, "you expect me to be satisfied with fifteen packets of thread from Brussels, when I can have twenty from Manchester?" "Certainly; do you not see that France would lose, if you received twenty packets instead of fifteen?" "It is hard for me to understand," said the wine-grower—"And for me to explain," replied the custom-house officer; "but the thing is certain, for all the deputies, ministers, and journalists, are agreed on this point—that the more a people receives in exchange for a certain quantity of its produce, the more is it impoverished." He was forced to exchange with the Belgian. The husbandman's daughter had only three-quarters of her *trousseau*, and the good people cannot yet understand how ruin could ensue from receiving four instead of three, and how they can be richer with three dozen napkins than with four dozen.

## THE POSITION OF THE AMERICAN MERCHANT.

Our readers, like Oliver Twist, are asking for more, and therefore Mr. Parker will pardon us for taking from his excellent "Sermon of Merchants" another *sample* of its *quality*. The passage which we now present portrays, in a vein which characterizes all the pulpit efforts of the author, the position and power of the mercantile class of America. Mr. Parker is an Independent Congregationalist, who stands aloof from all sects—or rather, all sects stand aloof from him. He says some things which are not considered orthodox or evangelical by the theologians; nevertheless, his ethics find favor with many whose lives are less heretical than their creed. We dare say, however, that there are some who will find fault with the views set forth in the annexed excerpta.

"In America, the POSITION of this (the mercantile) class is the most powerful and commanding in society. They own most of the property of the nation. The wealthy men are of this class; in practical skill, administrative talent, they surpass all others. Now, wealth is power, and knowledge power—both to a degree unknown before. Knowledge and wealth are more powerful with us than with any other people, for there is no privileged caste—priest, king, or noble—to balance against them. The strong hand has given way to the able and accomplished head. Once head-armor was worn on the outside, and of brass; now it is internal, and of brains.

"To this class belongs the power both of knowledge and of wealth, and all the advantages which they bring. It was never so before in the whole history of man. It is more so in the United States than in any other place. I know the high position of the merchants in Venice, Pisa, Florence, Nuremberg, and Basel, in the middle ages, and since. Those cities were gardens in a wilderness, but a fringe of soldiers hung round their walls. The trader was dependent on the fighter, and though their merchants became princes, they were yet indebted to the sword, and not entirely to their calling, for defence. Their palaces were half castles, and their ships full of armed men. Besides, those were little States. Here, the merchant's power is wholly in his gold and skill. Rome is the city of priests; Vienna for nobles; Berlin for scholars: the American cities for merchants. In Italy the roads are poor, the banking-houses humble, the cots of the laborer poor and bare, but the churches and palaces are beautiful and rich. God is painted as a pope. Generally, in Europe, the clergy, the soldiers, and the nobles, are the controlling class. The finest works of art belong to them, represent them, and have come from the corporation of priests, or the corporation of fighters. Here, a new era is getting symbolized in our works of art. They are banks, exchanges, custom-houses, factories, railroads. These come of the corporation of merchants. Trade is a great thing. Nobody tries to secure the favor of the army or navy—but of the merchants.

"Once, there was a permanent class of FIGHTERS. Their influence was supreme They had the power of strong arms, of disciplined valor, and carried all before them. They made the law and broke it. Men complained, grumbling in their beard, but got no redress. They it was that possessed the wealth of the land. The producer, the manufacturer, the distributor, could not get rich, only the soldier, the armed thief, the robber. With wealth they got its power; by practice gained knowledge, and so the power thereof, or, when that failed, bought it of the clergy, the only class possessing literary and scientific skill. They made their calling "noble," and founded the ARISTOCRACY OF SOLDIERS. Young men of talent took to arms. Trade was despised and labor was menial. Their science is at this day the science of kings. When graziers travel, they look at cattle; weavers at factories; philanthropists at hospitals; dandies at their equals; and kings at armies. Those fighters made the world think that soldiers were our first men, and murder of their brothers the noblest craft in the world; the only honorable and manly calling. The butcher of swine and oxen was counted vulgar—the butcher of men and women great and honorable. Foolish men of the past think so now; hence their terror at orations against war; hence their admiration for a red coat; their zeal for some symbol of blood in their family arms; hence their ambition for military titles when abroad. Most foolish men are more proud of their ambiguous Norman ancestor who fought at the battle of Hastings—or fought not—than of all the honest mechanics and farmers who have since ripened on the family tree. The day of the soldiers is well nigh over. The calling brings low wages and no honor. It opens with us no field for ambition. A passage of arms is a passage that leads to nothing. That class did their duty at that time. They

founded, the Aristocracy of Soldiers—their symbol the Sword. Mankind would not stop there. Then came a milder age and established the Aristocracy of Birth—its symbol the Cradle, for the only merit of that sort of nobility, and so its only distinction, is to have been born. But mankind who stopped not at the Sword delays but little longer at the Cradle; leaping forward, it founds a third order of nobility—the Aristocracy of Gold, its symbol the Purse. We have got no further on. Shall we stop there? There comes a To-morrow after every To-day, and no child of Time is just like the last. The Aristocracy of Gold has faults enough, this feudalism of the nineteenth century, no doubt. But it is the best thing of its kind we have had yet; the wisest, the most human. We are going forward and not back. God only knows when we shall stop, and where. Surely not now, nor here.

"Now the Merchants in America occupy the place which was once held by the Fighters, and next by the Nobles. In our country we have balanced into harmony the centripetal power of the Government, and the centrifugal power of the People: so have national Unity of Action, and individual Variety of Action—personal freedom. Therefore a vast amount of talent is active here which lies latent in other countries because that harmony is not established there. Here the Army and Navy offer few inducements to able and aspiring young men. They are fled to as the last resort of the desperate, or else sought for their traditional glory, not their present value. In Europe, the Army, the Navy, the Parliament or the Court, the Church and the Learned Professions, offer brilliant prizes to ambitious men. Thither flock the able and the daring. Here such men go into trade. It is better for a man to have set up a mill than to have won a battle. I deny not the exceptions. I speak only of the general rule. Commerce and manufactures offer the most brilliant rewards—wealth, and all it brings. Accordingly the ablest men go into the class of Merchants. The strongest men in Boston, taken as a body, are not Lawyers, Doctors, Clergymen, Bookwrights, but Merchants. I deny not the presence of distinguished ability in each of those professions; I am now again only speaking of the general rule. I deny not the presence of very weak men—exceedingly weak in this class.

"The Merchants then are the prominent class; the most respectable, the most powerful. They know their Power, but are not yet fully aware of their formidable and noble Position at the Head of the Nation. Hence they are often ashamed of their calling; while their calling is the source of their Wealth, their Knowledge, and their Power, and should be their boast and their glory. You see signs of this ignorance and this shame: there must not be shops under your Athenæum, it would not be in good taste; you may store tobacco, cider, rum, under the churches, out of sight, you must have no shop there; it would be vulgar. It is not thought needful, perhaps not proper, for the Merchant's wife and daughter to understand business—it would not be becoming. Many are ashamed of their calling, and becoming rich, paint on the doors of their coach, and engrave on their seal, some Lion, Griffin, or Unicorn with partisans and maces to suit,—arms they have no right to, perhaps have stolen out of some book of Heraldy. No man paints thereon a Box of Sugar, or Figs, or Candles, an Axe, a Lap-stone, or a Shoe-Hammer. Yet these would be noble, and Christian withal. The Fighters gloried in their horrid craft, and so made it pass for noble; but with us a great many men would be thought 'the tenth transmitter of a foolish face,' rather than honest artists of their own fortune; prouder of being born than of having lived never so manfully.

"In virtue of its Strength and Position, this class is the controlling one in Politics. It mainly enacts the laws of this State and the Nation; makes them serve its turn. Acting consciously or without consciousness, it buys up Legislators when they are in the market; breeds them when the market is bare. It pays them money and honors; pays them for doing its work, not another's. It is fairly and faithfully represented by them. They are made in its image; represent its wisdom, foresight, patriotism, and conscience. Your Congress is its mirror."

## OFFICIAL SMUGGLER.

Alexander Dumas, in his "Impressions de Voyage," gives the following account of Beautte's system of smuggling, who stands at the head of the fashionable jewellers in Geneva:—

"It is difficult to imagine a collection more rich in those thousand wonders which tempt a female heart; it is enough to drive a Parisian lady mad, or to make Cleopatra palpitate with longing in her grave. This jewellery is liable to a duty on entering France; but for a premium of 5 per cent, M. Beautte undertakes to smuggle it. The bargain between the buyer and seller is publicly made upon this condition, as if there

were no custom-house officers in the world. It is true that M. Beautte possesses wonderful address in setting them at fault; one anecdote out of a thousand will show the truth of the compliment which we pay him. When the Count de Saint Cricq was director-general of the customs, he heard this skill, by which the vigilance of his officers was deceived, so frequently mentioned, that he resolved to assure himself whether all was true that was said of it. He consequently went to Geneva, presented himself at M. Beautte's shop, and purchased 30,000f. worth of jewellery, on condition that it should be delivered without paying the import duty at his residence in Paris. M. Beautte agreed to the condition like a man accustomed to bargains of the kind, and merely presented to the purchaser a sort of promissory note by which he undertook to pay the usual 5 per cent, besides the 30,000f. purchase money. The latter smiled; took up a pen, signed "De Saint Cricq, director-general of the French customs," and handed back the paper to Beautte, who looked at the signature, and contented himself with answering, with a bend of the head, *M. le directeur*, the article which you have done me the honor of buying, will arrive at Paris as soon as yourself.' M. de Saint Cricq, whose interest was excited, scarcely gave himself time to dine, sent to the post for horses, and set out an hour after the bargain had been concluded. M. de Saint Cricq made himself known to the officers who came to examine his carriage, told the principal one what had happened him, enjoined the most active surveillance on the whole line, and promised a reward of fifty louis to the officer who should succeed in seizing the prohibited jewellery. Not a custom-house officer slept during three days. During this time, M. de Saint Cricq arrived at Paris, alighted at his residence, kissed his wife and children, and went to his room to take off his travelling dress. The first thing he perceived on the chimney-piece was an elegant box, with the shape of which he was unacquainted. He approached it, and read on the silver plate which ornamented it, 'The Count de Saint Cricq, director-general of the customs.' He opened it, and found the jewellery which he had purchased at Geneva. Beautte had made an arrangement with one of the waiters at the inn, who, while assisting M. de Saint Cricq's servants to pack their master's luggage, had slipped the prohibited box among it. On his arriving at Paris, his valet, noticing the elegance of the case, and the inscription engraved upon it, has hastened to place it upon his master's chimney-piece. Thus the director-general of the customs was the first smuggler in the kingdom."

## COMMERCE IN EGGS.

We copy from Skinner's *Monthly Journal of Agriculture*, a periodical conducted with singular ability, and of great value to the intelligent farmer, the following statement in regard to the egg trade of France:—

In the whole cycle of commercial statistics, we have not lately met with anything more remarkable than the account we find in the "Journal d'Agriculture Pratique et de Jardinage, on the *Egg Trade* of France. The editor says that it appears by official returns that in 1815, the number of eggs exported was not more than to the amount of 1,700,000 francs. In 1816, 8,800,000 francs; in 1822, 55,000,000; in 1824, to 99,500,000! The trade was then arrested, and experienced a retrograde movement. The exportation fell to 55,000,000 in 1830, but in 1834, it rose again to 76,800,000, and in 1844, it mounted up to 88,200,000. This mass of eggs weighed, at the rate of sixteen to a kilogramme, 5,213,000 kilogrammes; upon which the treasury realized 114,000 francs (about $25,000) export duty on eggs! England takes almost the whole of the eggs exported from France. Of the 88,000,000 above-mentioned, 82,500,000 have crossed the Channel. According to the official estimates, the consumption of eggs in Paris is 138 for each individual, which is very nearly 120,000,000 a year. We may double this estimate for the rest of France, without exaggeration; for, in the country, eggs and milk are aliments to be found on every table. We eat, instead of eggs and milk, vast quantities of *solid fat meat*—Americans having, as was expressively said by the Abbe Cornea, "*bacon stomachs!*"

The consumption, then, of eggs, in all France, may be safely put down at 9,300,000,000. If we add to this total that of the eggs exported, and one-hundredth in addition of these two numbers for the eggs reserved for reproduction, we find that France has produced *nine billions and a half;* and valuing each egg at the rate of a tenth of a cent, we have the enormous sum of 465,000,000 of francs, or nearly $100,000,000. Though this estimate may overrun the production in some of the Departments, it is nevertheless certain that the value which represent the annual production of eggs, is to be counted by *millions of francs*, and to most people must be a matter of surprise.

## THE LONDON DOCKS.

In a work of Mr. J. J. Smith of Philadelphia, published during the last year, entitled "A Summer's Jaunt Across the Water," we have some interesting commercial information respecting the London Docks. He remarks: "A visit to the London Docks is a fatiguing operation. A kind friend who knows the ways of the place accompanied us, having provided himself with that important document, an order to taste the wines. The dock we visited is not the largest, but probably contains as much in value as any other. There are 1,600 pipes of wine in the Crescent vaults alone, and 5,000 above. In the port of London, there are now in dock 100,000 casks of various sorts. A vat for mixing wines in the Crescent, will contain 10,200 gallons; here, old and new are mingled. In matters of temperance, the British nation is far behind us. We saw a number of the professional tasters hanging about; one, at least, I can vouch for it, has a peculiar discoloration of the nose. With lighted links, we travelled this underground world, and then emerged to the warehouses above; the construction of the whole is a triumph of ingenuity and strength. In the warehouses, great masses of ivory tusks are encountered; wax, tea, cork; sugar, in quantity beyond our previously conceived ideas—the very drippings from the hogsheads would be a snug fortune. This black liquid is carefully swabbed up from under foot, and purified. It is calculated that £50,000,000 sterling worth of goods are now in dock, occupying no less than 160 acres; 1,200 houses were pulled down to construct the London Docks alone; there are three others, still larger. We inspected rooms, full of silk in a raw state, having in them 3,150 bales, brought from Turkey, China, Persia, and Italy, and assorted into colors ready for the English manufacturer. One single room contained 1,500 large bales. The rooms containing Tuscan straws ready for plaiting, were very attractively neat. We saw half an acre of Cinnamon!"

## REDUCTION OF DUTY ON FRENCH WINES.

A letter has been addressed by the Free Trade Association of Bordeaux, to Lord John Russell, urging the British government to reduce the duties on French wines to £10 per tun, or about 1s. per gallon. The advantages likely to be the result of the reduction now proposed, are thus set forth by the Bordeaux merchants:—1. To place an article, healthful when used moderately, within the reach of all classes in England. 2. To check the excessive use of spirituous liquors, it being well known, (as it has been observed in France,) that drunkenness is less general in those places where wine, being abundant and cheap, becomes an object of usual consumption. 3. To obtain a new means of selling abroad British produce and manufactures, which might be exchanged for our wines, either directly with France, or indirectly, through the medium of other countries. 4. To give a freight to the English vessels that come to our ports loaded with coals, but have almost nothing to take back with them, and are thus prevented from coming in much greater numbers.

## BRITISH HOP TRADE.

The number of acres of land in Great Britain under the cultivation of hops, in the year 1846, amounted to 51,948. The duty on hops of the year 1846, amounted to £443,657. The quantity of British hops exported from Great Britain to various foreign countries in 1846, was 448,497 lbs. The quantity of foreign hops exported was 557 cwt., and the quantity imported 3,283 cwt., almost exclusively from the United States of America. The total number of pounds weight of hops charged with the duty in the several collections of the United Kingdom, in 1846, amounted to 50,704,025.

## A NAIVE TRADE CONFESSION.

A highly respectable retail dealer, in one of the principal thoroughfares of London, justifying himself from the charge of ruinous dealings, said, very naively, "This is the fourth time, within two years, that I have sold off my stock at considerable loss, with considerable profit."